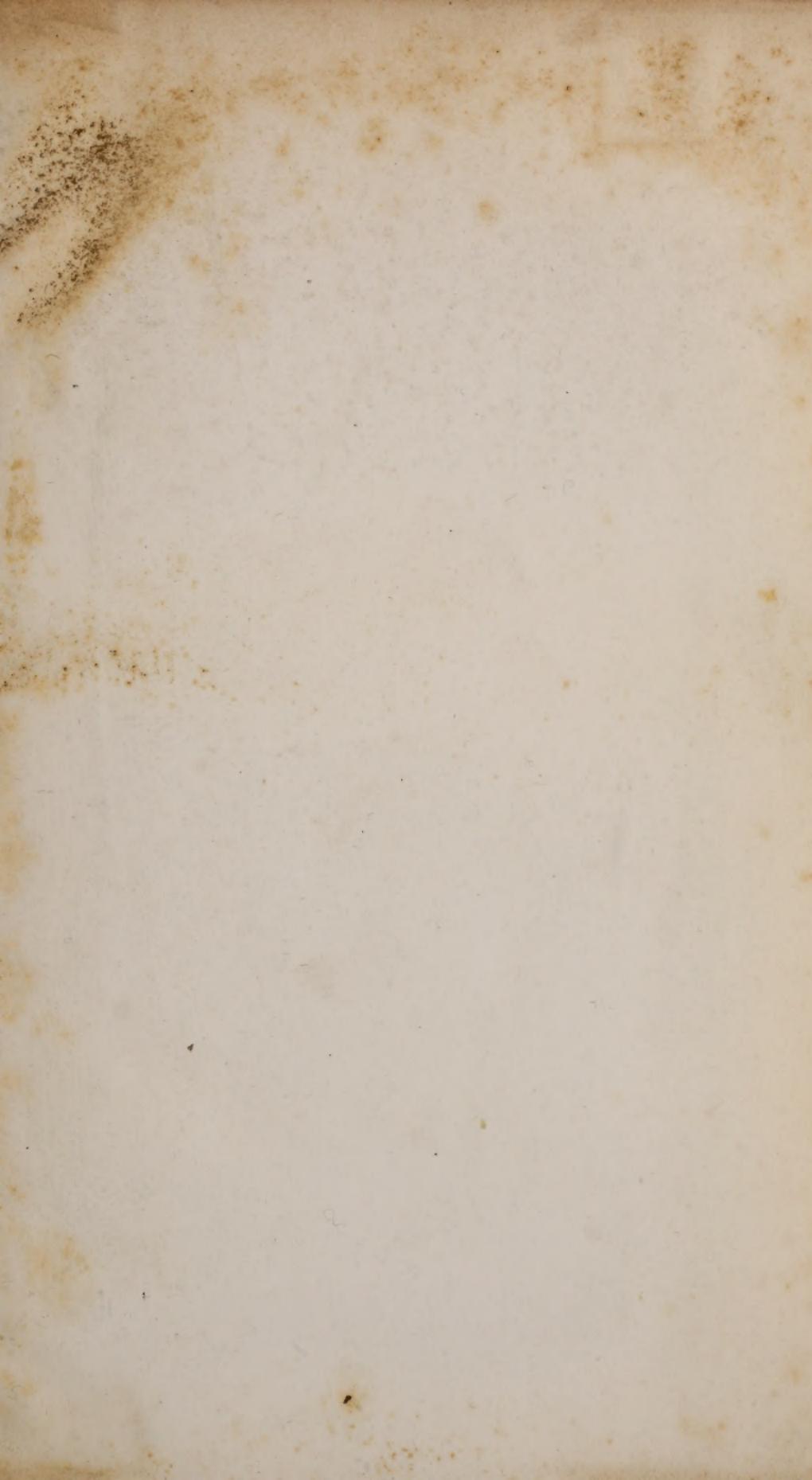


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The care of the human mind is the most noble branch of medicine.—GROTIUS.



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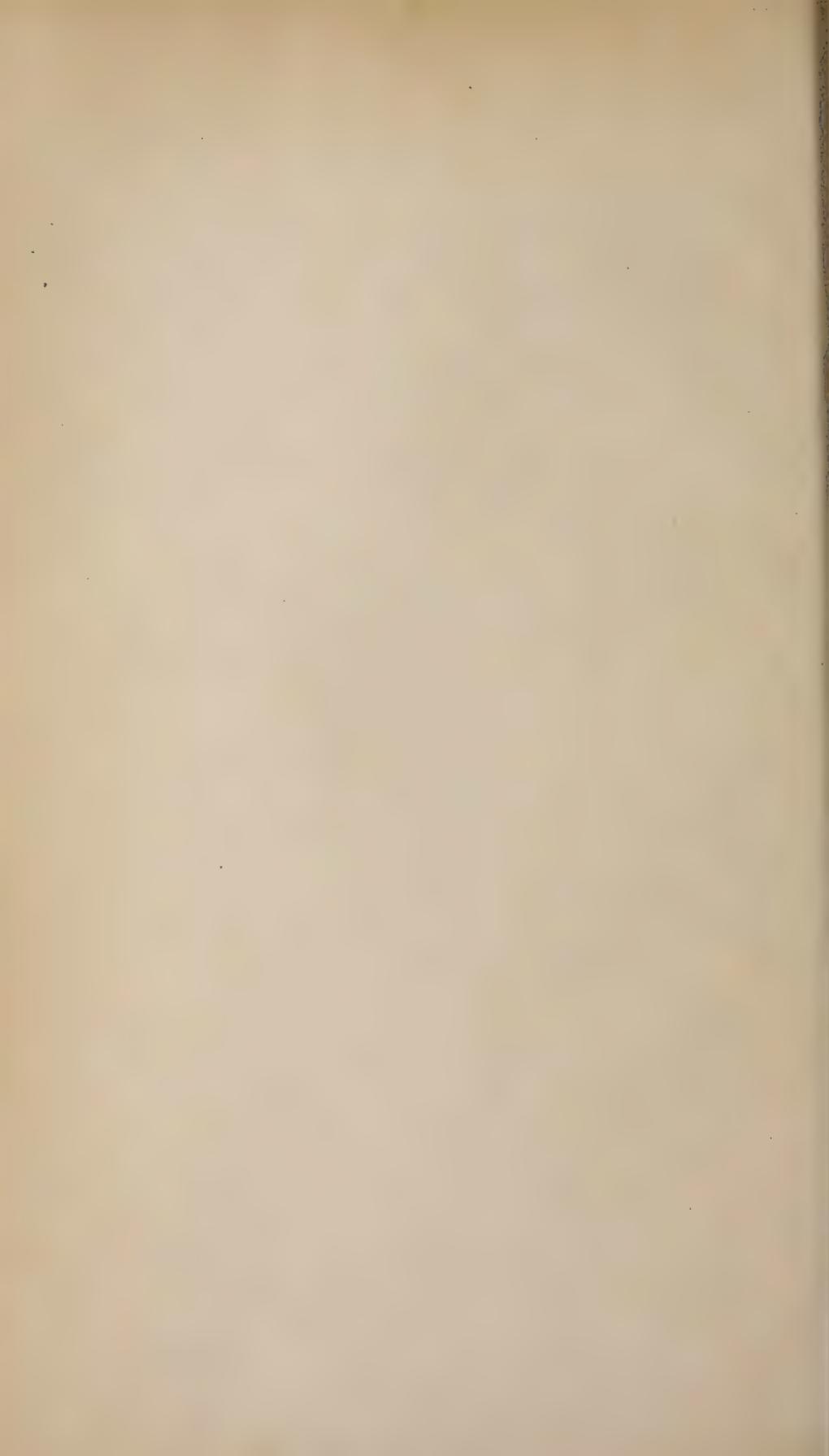
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AMERICAN
JOURNAL OF INSANITY,
FOR JULY, 1874.

PATHOLOGY OF INSANITY.*

BY JOHN P. GRAY, M. D.,
Superintendent of the New York State Lunatic Asylum.

On two former occasions I read before the society, papers on the physical nature and causation of insanity, and last year presented a few photo-micrographs illustrating some of the morbid changes, which, up to that time had been discovered upon post-mortem examinations. With a single exception the illustrations were taken from chronic cases, for, although a large amount of material had already been prepared, the arrangements for successful representation by photo-micrography were not completed, nor until then had we been able to secure reliable, healthy brain tissue for comparison. Furthermore, up to that time we had been able to examine microscopically but one case of acute insanity, and in that instance only from the hardened brain.

Since the arrangements have been perfected in the pathological laboratory, we have obtained and examined healthy brain and nerve tissue, and also two more cases of acute insanity, and been able to make photographs from

* Read before the New York State Medical Society, February, 1874. This paper embraces portions of one published in the January number of this JOURNAL.

fresh as well as hardened tissue. In the port-folio here presented, are photo-micrographic illustrations of healthy brain tissue, acute, sub-acute and chronic mania, melancholia in acute and chronic stages, dementia, general paresis and epilepsy, and in connection with each, a descriptive text, presenting a brief history of each case. These investigations embrace the microscopic examination of 52 cases, and especially the changes found in the vessels, nerve fibres, cells and neuroglia or connective tissue.

As I have heretofore stated, (see Am. Jour. Insanity,) in all cases, the vessels, nerve cells and neuroglia undergo changes in their composition and arrangement before marked impairment of the conducting elements of nerve fibre takes place. The increase of interstitial matter between the fundamental nerve elements, has been prominent, and while there has been a multiplication of connective fibres, there has been diminution of connective nuclei.

In chronic cases the increase of neuroglia, in the gray and white matter, has been characteristic, reaching a higher degree in the gray matter, and appearing more in the anterior than the posterior regions. The alteration has been found frequently in connection with the capillaries, more generally, however, in localized regions, in the cerebral tissue, circumscribed in a cystic cavity, formed by condensed, minute connective fibres. These isolated masses consist of a granular and friable matter, becoming transparent in the advanced stages, and in some cases even converted into a serosity. (See plate A, 1 and 2, and 20 and 28.) These granular products are not fatty, and are not dissolved by ether, chloroform or alkaline solutions. They become darker and more distinct when treated by acetic acid, and though remaining solid, do not exhibit a homogeneous mass.

The study of these developments would lead to the conclusion that they originate in the interstitial elements of the nerve tissue, and that, in their growth they produce, through mechanical pressure, rēabsorption of nerve cells and fibres. The cavities in which they are contained vary in size from those of the nuclei of multipolar cells, to such as can be seen with the naked eye, constituting the pisiform excavations which give to the brain sections in cases of chronic insanity, the gruyère cheese appearance described by French alienists. Such cavities occasionally result from capillary haemorrhages, then however, the surrounding tissue shows discoloration, changing from yellow to a dark, rusty brown, from infiltration of coloring matter of the blood. The cavities here described exhibit no such tint, nor are they in direct connection with the capillary vessels as the cysts proceeding from old apoplexies are. In this condition the brain elements disappear by rēabsorption in scattered points, under a circumscribed necrobiosis originating from local conditions under the morbid process developed in the brain. Be this as it may, it seems evident that such isolated absences of tissue throughout the cerebral hemispheres, cannot be regarded as a consecutive effect of distant lesions. How much share these broken connections between the perceptive brain cells, and those of the peripheral part of the special senses take, in the causation of hallucinations and other sensorial phenomena, peculiar to insanity, is difficult to determine, although the fact appears worthy of notice in this special connection.

The alterations in the cerebral tissue, in general paresis, originates mainly in the vascular system, as has been shown by the researches of Virchow, Westphal, Salomon, Lockhart Clark, Sankey and others, and to this origin must be ascribed the epileptiform symptoms

so frequently attending general paresis, and deriving their source in local disturbances of the cerebral circulation. The change begins in the adventitious sheath of the arterioles and larger capillaries, first described by Virchow and Robin, which becomes distended in a small portion of its extent, sometimes uniformly around the minute vessel within, at others bulging out laterally, the enlargement thus produced being filled with lymph, granular cells and hæmatoic crystals, or granulations, more generally the vessel is twisted or elongated, exhibiting a fine, fatty degeneration of its coats which are often torn asunder, allowing the blood to escape into the lymphatic surrounding sheath, where it coagulates and ultimately undergoes a fatty change.

The nervous elements in the vicinity of the blood-vessels are also involved in their structure, and equally undergo an alteration characterized by a multiplication of connective fibres and molecular granulations. To such a proliferation of connective elements is due the peculiar firmness and pellucid appearance, with change of color, displayed in the grey substance, and which Baillairger (*Annales*) has described as one of the characteristic pathological changes of the brain in general paresis. (Plate B 1 and 2,) 37 and 39.

The condition of the brain in epileptic insanity, and especially the alterations in the medulla, agree in appearance and character with those pointed out and described by Dr. Echeverria in his work on epilepsy. (Plate C 1 and 2,) 33 and 34.

J. Hughlings Jackson defines epilepsy to be "an occasional, sudden, excessive and rapid discharge of gray matter of some part of the brain," thus constituting it a truly cerebral disease. We have been particular to examine cases of epilepsy, and though we have a large number of preparations, have not yet reached the point

of much illustrative work, and consequently present but a few plates. In these, however, these morbid changes are very marked, especially the pigmentation of multipolar cells. It is highly important to determine whether the epileptic phenomena of convulsion and unconsciousness are simply in the nature of functional modification due to instability or increased susceptibility of brain tissue, or to some deeper change taking place in the vascular system and fundamental nerve elements. Whatever the initiatory processes may be, investigations show that in the progress of the disease there are profound degenerations, and that some form of insanity is likely to be superinduced sooner or later in the course of persistent epilepsy. Furthermore, the history of the disease shows the uncertainty and unreliability of the frequent actual arrest of the disease, by its return, even in the majority of the favorable cases, where a cure seemed to have been effected.

We have irritable nerve matter in nervous excitable people, and nervous exhaustion, as expressed in persons of high cerebral organization, by sudden failure of mental power and activity, and quick recuperation under rest; but these conditions are very different from the nervous explosions of epilepsy and the mental enfeeblement or degeneration so apt to follow continued epileptic seizures. If epilepsy, in the beginning, is simply loss of stability or malnutrition, its persistence, in so large a proportion of cases, in defiance of treatment, and its universal tendency downwards would certainly justify the probability of a grave lesion at the foundation as the true *fons et origo*.

In fact, to say that disease is functional is simply to admit that we do not know what has taken place, or that we have only studied the phenomenal symptoms. The theory advanced by Hughlings Jackson, and indi-

cated in his definition of epilepsy, that certain regions of the brain are so effected in epilepsy as not to hold, store up and give off as required, nerve force or energy in a normal way, but to discharge the whole suddenly and rapidly, and thus produce convulsive movements in those parts anatomically related to such a discharging center, in the brain, is perhaps the most satisfactory that has been presented. Assuming that the brain consists of many separate centers, each having a distinct relation through the motor tracts to the separate parts of the organism, this hypothesis would seem to account for the local as well as the general convulsive phenomena presented in this extraordinary disease. It still remains, however, to determine what relation the gray matter may have to motor action, and whether the disease, in its earlier or initial stage, is located in the medulla or gray matter of the brain.

The case of syphilitic insanity, of which several photo-micrographs are presented in the portfolio, adds further proof to the fatty degeneration which constitutional syphilis brings about in every tissue. (Plate D 1 and 2; and E 1 and 2,) 29, 30, 31 and 32.

This is the only instance of syphilitic insanity of which we are able to present photo-micrographic representations. The insanity in this case was of an acute form, and the plates, while revealing such profound fatty degeneration, at the same time show, in a marked degree, the alterations characteristic of acute insanity. The history of this case in the beginning was one of typhoid fever, and the physicians giving the certificate for his admission to the asylum, (he was indicted for homicide) had hesitation in his case, and on his admission the mental phenomena of insanity were only slightly indicated. He died soon after and a post mortem examination revealed extensive inflammation of Peyer's glands with ulceration.

The capillary system has participated in the morbid processes in every instance, but it has seemed to be affected primarily, particularly in general paresis and epilepsy. The nature of the alteration has been ultimately atrophic in every case, that is, resulting in the disappearance of central nerve elements, to wit: nerve cells and fibres, with a remarkable hyperplasia of amorphous matter and connective fibres. In acute cases the involvement of the fundamental elements in the morbid process has appeared to have taken place rapidly, and without any observable effusion of lymph throughout the tissue. Such a morbid process can not be looked upon as of an inflammatory character, for no proliferation of capillary vessels or the so-called inflammatory corpuscles of Bennett, have occurred.

The trouble here has rather betrayed itself in a condition of intense irritation, exhausting the power of the cerebral cells and ultimately bringing on their consecutive necrobiosis. This assumption is perfectly consistent with the phenomena of restlessness and delirium, found in acute mania, and is furthermore strengthened by the discovery made by Brown-Séquard, that in cases of paralysis from injury, without irritation of the nervous centers, the consecutive alterations of nutrition are slow in their progress, while on the contrary, with irritation of the brain and cord, alterations of nutrition and structural changes supervene rapidly. I would call especial attention to the plates representing acute mania, and to uniformity of lesion observed.

More than two years ago, Dr. E. R. Hun, in examining, in the Asylum, under the microscope, recent sections in the first case, acute under consideration, observed certain spots, the nature of which, however, we were not able to determine, and plates 25, 26, 27, represents this case. Dr. Hun described this morbid appearance as follows:

“While examining the brain of a female patient who died during an attack of sub acute mania, in August, 1871. I saw for the first time, a peculiar lesion of the tissue of the brain and spinal cord, which I subsequently met with in a number of cases, not only of acute mania, but also of other forms of insanity. These sections of the tissue, previously hardened in absolute alcohol, were made and colored with carmine, rendered transparent with benzole, and mounted in balsam. Examined by transmitted light, they could be seen with the naked eye, studded with small white spots, which were very numerous and of variable size. Under the microscope these spots presented a granular appearance, and many of them contained a number of elongated crystalline bodies. They did not imbibe the carmine solution to the same extent as the surrounding healthy tissue, and were of a pale greenish color. Their edges were not well defined, but the deposit seemed gradually to merge into the normal brain substance. They were circular or oval in form, and varied in size from one-twentieth to less than five-hundredth of an inch in diameter. In some instances the nerve fibres seemed to pass through them, but as a general rule they seemed to be destroyed.”

We now find that the spots are not colored by carmine at all. The sections then examined by Dr. Hun, were thick and what appeared to be a slight coloring by carmine, was due to coloring of brain tissue under and over the spots.

Dr. McKendrick assistant to the physiological chair in the University of Edinburgh, found that within ten days after wounding the brain of pigeons, around the cicatrices, where they were healing, certain bodies appeared which, upon examination, were seen to be colloid. Batty Tuke says: “Colloid degeneration is one

of the most important and interesting forms of brain lesion, being I believe the primary pathological change in certain of the most prominent and well defined varieties of insanity. I will merely say now that good reason exists for believing that upon colloid degeneration, depend those cases in which the vague term brain disease is employed to indicate that a primary affection of that organ is the exciting cause of the mental symptoms."

In the case of the pigeons, these colloid bodies would seem to be a hyperplasia, dependent on physiological activity in an abnormal degree, in the process of reparation.

Since writing the above and within the past week I have received from Voisin, a pamphlet, giving in brief detail three cases reported by him, with illustrations. I have appended this little pamphlet to the plates in the port folio, inasmuch as his plates are so much like those of the case of acute mania referred to in plates 44, B, C, D, F, H, K.

The disturbance or arrest of functional action, or its increased activity in an organ morbidly affected, only in a circumscribed or limited space is already well recognized, and may be illustrated in cases of limited pneumonia, where the whole organ, however, suffers in its functional action. We see the same indeed in other organs, as the liver, kidneys, &c. Limited or regional disease of the brain and spinal cord, is also a well settled pathological fact, and in paralysis, epilepsy and traumatic injuries we have marked examples.

In hemiplegia, a lesion in the motor tract not only produces paralysis of the anatomically related muscles, but a temporary and partial paralysis of muscles not so related. Whether this latter is due to shock or physiological sympathy, it is not necessary here to discuss, I

simply refer to the fact. In severe cases of hæmorrhage into the motor tract and consequent hemiplegia, there is also more or less mental shock, and even mental disturbance, showing a convolutional relation with the motor lesion. On the other hand, a hæmorrhage on the surface of the brain instantly affects the motor tracts.

The application of the theory of limited or regional lesions in insanity would seem to be not only in accordance with what we discover in other cerebral diseases, but is sustained by the phenomena of the disease and by pathological investigations.

In a case of mania of but a few days standing, we discovered in the fresh specimens, when under the microscope, along the true inner wall of the capillary vessels, and between the wall and the delicate lining or intima, small granular masses in spots presenting so large an accumulation as to practically produce a thrombic condition of the vessel, as may be observed in plate 44, B, C, D, K. In others producing an occlusion and practically an embolism. See plate 44, B.

These granular bodies as will be observed from plate 44, F, H, are also collected near the branching of vessels. In another case of mania, where the disease was farther advanced, we have observed colloid bodies, a semitransparent nitrogenous plasma, proteinaceous in its nature, scattered through the tissue and not confined to the line of the vessels, and as it will be observed from the specimen, sometimes so thickly spread out as to occupy nearly half the space over the section. The former would seem to be the earliest morbid product of the physiological change, initiating the subsequent cerebral pathological condition, thus sustaining the opinion of pathological observers that the change commences in the vascular system, and that the central nerve elements, the cells and neuroglia, are consecutively or se-

quently involved. This is sustained by the further observation that the amyloid bodies, a non nitrogenous product, which are observed in the more advanced conditions, and especially in chronic insanity, dementia and general paresis, are found also along the vessels in the location of the original granular bodies, these amyloid bodies being evidences of advanced degeneration, found not only in sections immediately after death, and in hardened brain tissue, but also developed in the brain after death when kept in moist and not over warm locations. The earlier granular bodies spoken of when they spread over a more or less extended region, limit the circulation in the vessel and by impeding it induces first, a local hyperæmia, and subsequently, by cutting off the supply of blood or largely embarrassing it, a local anæmia; hence, we have nutrition not only impaired, but to a certain extent prevented, and the brain cells being thus deprived of blood, finally pass into conditions of fatty degeneration and necrobiosis. Again, in cells feebly nourished, or subjected to pressure of a mechanical nature arising from a proliferation or increase of connective tissue or neuroglia, there is embarrassment of functions, at times amounting to actual suspension. This increase of neuroglia may be observed in plates 18 to 24, and is found in all stages of the disease. Indeed it will be observed as in plates 37, 38, 39, that this increase of interstitial or amorphous matter has largely obliterated the nerve elements.

Some observers, and prominently Batty Tuke, probably judging from this general distribution or increase of interstitial matter, suggest the idea that the disease commences in the nuclei of the neuroglia. The colloid bodies found so profusely in the early stages, and being in the nature of normal plasma, are quite probably material thrown out under increased functional activity

as an attempt at a reparative process, just as we have plasma thrown out in œdema, or as in the provisional exudations which occur preparatory to the reparative processes in lesion of various parts of the organism.

If the earlier granulations in the walls of the vessels and the materials thrown out are reabsorbed, (a process of reabsorption we know to be reparative in other organs as in pneumonia, congestion of the lungs, glandular swellings, erysipelatous œdema, &c.,) recovery takes place, if not, as before stated, the death of the tissue follows from malnutrition, or partial or complete deprivation of nourishment from pressure, &c., and the portion of the brain involved passes into a permanent condition of disease from transformation, by degenerative processes, into fat and interstitial amorphous matter.

As previously stated, the higher elements as the nerve fibres and cells, are the last to give way. They often preserve their vitality, however, under a low degree of nutritive action, and when the slow absorption of material releases them from pressure, we have recovery in chronic cases.

A fact which seems of the utmost importance is the similarity of histological changes attending the different forms of insanity, as represented in the photo-micrographs, and, indeed in all cases which have fallen under observation. If such regularity is displayed in future investigations, as I am strongly led to believe will be the case, this fact will practically confirm the principle, that in insanity we have to contend with only one diathesis, manifesting itself under different phases in its progress and results. The correspondence between degenerations of the cortical substance and of the central ganglia, pointed out in France by Luys, Laborde and Charcot, and in this country by Echeverria, has found

further confirmation in these researches; whereas, lesions in the structure of the third left convolution, as Bouchard, Echeverria, Batty Tuke and others, have already shown, have not necessarily involved the existence of aphasia or amnesia. The importance attached to this subject has led me in every instance to direct investigation particularly to this region of the brain. I simply state here the result, hoping to treat this question at some future time, when the material may be sufficiently abundant to determine the exact value of the ingenious theory so confidently put forth by Broca.

From continued investigation I feel justified in expressing the conclusions heretofore reached. (May, 1873.)

The distinction between the appearance of the cerebral tissues, in the specimens presented, of mania and those of general paresis and epileptic insanity, would seem to uphold the separate class assigned to the last two forms of disease in the classification adopted.

Although the cases thus far examined may be regarded as insufficient to establish general conclusions, they go to strengthen the conviction sustained by the laws of general pathology, that insanity is a physical disease of the brain, and that the mental phenomena are symptoms. Further, that the microscope with patient and close investigation, will continue to disclose structural changes in the cerebral tissue, as marked as those heretofore unsuspected, when examinations were limited to the scalpel and naked eye; and in these investigations, when the entire range of the disease, in every stage of its progress shall have been brought under the microscope, we may be able to solve the problem of the morbid processes conveniently denominated as insanity.

Another conclusion to which these investigations would naturally lead, is, that the variety and changes in the predominant symptoms of insanity may find their explanation, not so much in the variety of lesions as in the special parts of the cerebral centers which are morbidly involved in each case; or, to bring the idea within narrower limits, that emotional, ideational and motor disturbances have their foundation in the extent and degree to which the nerve elements that minister to the execution of intellectual and motor acts are involved in the lesion. When the disease reaches its ultimate stage, all distinctions cease, dementia being the same closing stage of every so-called form of insanity.

The bodies or cells, referred to on page 10, are the so-called granule cells of the German authors,* a peculiar fatty cell formation, which, first observed in the spinal cord, for a time were considered as a pathological change, especially relating to general paresis (progressive paralysis.) After more extended investigations, however, embracing over three hundred cases, only a part of which were accompanied by the symptoms of paresis, (paralytic dementia,) and after discovering the same lesions in acute as well as in chronic cases, and in all regions of the nervous centers, the theory gained ground, that these transformations of the tissue elements into granule cells were general phenomena, produced by a general or local disturbance of nutrition.

The extent to which they appear is undoubtedly in all instances of the greatest importance. They have

* Theod. Simon : Archiv für Psychiatrie Bd. 1 Heft. 3, Bd. 2 Heft. 1 and 2.
Theod. Simon : Die Gehirnerweichung der Jernen (Dementia paralytica,) Hamburg : Wilh Manke.

L. Meyer : Archiv für Psychiatrie Bd. 3, Heft. 1 and 2.

Huguenin : Archiv für Psychiatrie Bd. 3, Heft. 3.

Obermeier : Archiv für Psychiatrie Bd. 4, Heft. 1.

Tigges : Allgemeine Zeitschrift für Psychiatrie Bd. 29, Heft. 2

Rabenau : Archiv für Psychiatrie Bd. 4, Heft. 2.

been found as a component part of senescence, but also in the cord of children, only a few months old.

Their relation to inflammation of the spinal marrow, has led authors to distinguish between simple myelitis and myelitis connected with a formation of granule cells; the last, without regard to paralytic dementia (paresis) and frequently connected with phthisis and in cases of chronic mania and melancholia of long standing and especially in cases of senile dementia (Simon) accompanied by paralytic symptoms. The affection of the dura and pia spinalis, known as chronic spinal meningitis found in connection with phthisis, as first pointed out by Simon, may lead to a closer study of the symptoms of the so-called granule cell myelitis, without being complicated with affections of the nervous centers.

In gray degeneration, Türk,* distinguishes between a gray degeneration without, with only a small and with an extensive occurrence of granule cells, and maintains no necessary connection between these two lesions. Theod. Simon asserts with great positiveness, that the granule cells myelitis can not be regarded as its beginning state, and that it may produce itself the most marked symptoms of paralysis, without undergoing a metamorphosis into gray degeneration.

The former assumption (Türk) that the whole process of transformation of tissue elements into granule cells is only to be regarded as a slowly progressive one could likewise not be ascertained. On the contrary in all those cases, where they undoubtedly proved fatal, the changes occurred most rapidly, as in fatty metamorphosis in general.

In a case of embolism of one of the larger cerebral arteries of only three day's duration, the smaller ves-

* Türk: Wiener Academie Berichte Juni 1856.

sels and capillaries were found extensively involved by accumulations of these cells. Similar very acute cases have been observed by Voisin,* by Huguenin,† and as above shown in plates, and these latter have presented an excellent occasion for the study in detail of the development of granule-cells.

The drawings and the description given by Voisin are, however, lacking in correctness and distinction, while those of Huguenin could only in most of the principal parts, be confirmed by our own investigations, before we had the opportunity of noticing the same.

1. The oblong nuclei of the fusiform cells of the capillaries are transformed into granule-cells.

Of the cell-elements of the vascular system the nuclei of the smallest capillaries seem in all cases first affected. The nucleus loses its smooth, shining appearance, swells up, beginning at the outer border, first to an oviform, sometimes irregular shaped granular body, in which often two or three small spherical nucleoli are distinguished. In a little further advanced stages two or three of these bodies formed by division of the first one, fill up nearly the whole space of the mother cell, distending its membrane, which soon entirely disappears, and rows on each side of six, eight or more, dark granulated globules, here and there showing between them the remains of an unaltered cell, mark the course of the former capillary duct.

2. The nuclei of the cells of the adventitia of the capillaries are transformed into granule-cells.

These transformations of the fine and delicate involucrum which surrounds the larger capillaries of the nervous centers, exhibit somewhat different features from those above described. An accumulation of a

* Voisin: Association Francaise. Bordeaux, 1872.

† Archiv für Psychiatrie, Bd. 3, Heft. 3.

grumous granular matter first takes place around the nuclei. The nucleus entirely involved by these granules disappears, and a granule-cell, sometimes of considerable size is formed. What part the nucleus takes, however, in the process of multiplication of these cells, has not yet been determined. But soon they appear multiplied by division, and the new accumulations form in the most advanced stages large oval masses of granule-cells, which involve entirely the unaltered, though apparently compressed inner space of the capillary vessel. Some of these exhibit soon after reaching this state, an atheromatous condition; the outlines of the cells become indistinct and a crystalline fatty mass is formed.

3. The lymphatic elements of the adventitia of the vessels are transformed into granule-cells.

These belong to the most common and most extensive ones. The formation of the cells occur in the same manner as in the adventitious elements of the capillaries, by accumulation of granular bodies which multiply by division.

4. The nuclei of the muscular coat of the vessels are transformed into granule-cells.

The history of these transformations has recently been brought within our observation in a case of melancholia connected with phthisis. According to Huguenin, in an acute case, after removing the degenerated adventitious parts, the outlines of the muscular fibres disappear, the transversely situated nuclei are enlarged, become opaque and of a grumous and granular structure, while the whole vessel itself perishes.

5. The nuclei of the neuroglia are transformed into granule-cells.

The nuclei are enlarged, the protoplasm appears contracted, opaque and of a darker color than usual. In

further advanced stages it is divided into two, three or more granular conglomerations, which afterwards separate, forming as many single globules.

6. The spindle-shaped ganglion-cells of the inner layer of the cortes of the convolutions, and the larger pyramidal cells, are transformed into granule-cells.

The process in the transformation of the smaller ganglion-cells is much like that of the nuclei of the neu roglia. The pyramidal-cells appear first as puffed out, the protoplasm is formed into vesicles, like small oil globules, surrounding the nuclei. The nucleus loses its fine punctured appearance, and seems divided by the contraction of its contents into a translucent part, which often contains the opaque looking nucleolus and into a grumous mass filling out the other half. In further advanced stages the whole nucleus seems to form one large-sized granule-cell, sometimes with irregular outlines, the outer part of the cell and the processes are then shrivelled.

In all instances, as will be seen, a necrotic decay of the elements is the general feature of these changes, apparently produced by a sudden and continued lack of nutrition. The principally affected regions are always softened, often intermingled with lymphatic elements, which, very probably, play an important role in the propagation of these lesions.

The following cases, with the accompanying plates, will serve to illustrate the pathological changes described. A number of plates are referred to in the article, which are not presented here; but we have given sufficient to fairly represent the morbid changes.

CASE 1. *Chronic Mania.*—Man; age sixty-two; had been insane some years; entertained delusions that his friends had robbed him and entered into conspiracy to get possession of his property. Memory was seriously impaired; would forget business transactions from day to day; became miserly in his habits;

hoarded up articles which had been cast away as worthless; charged neighbors with having stolen his watch; was untruthful and feeble in mind. A short time before admission was disturbed by a law suit, which had been entered against him. At the trial was excited and talkative, and wanted to address the jury, and talked in an irrelevant and incoherent manner; after this became more disturbed, lost sleep and appetite, and emaciated rapidly; he soon was maniacal, noisy, profane, obscene in speech, and resisted care. In this condition he was brought to the asylum. On the way he was destructive of clothing, broke the glass in the car window and cut his hand severely; was thin in flesh and feeble. He continued noisy and maniacal, gradually failed, and died a week after admission.

Autopsy.—Head.—Dura mater slightly adherent to arachnoid, considerable sub-arachnoid effusion; left lateral sinus plugged with a highly organized fibrinous clot, two inches in length; right sinus contained a white clot not so highly organized; membranes easily detached; convolutions softened in places and tissues pulled away with membranes. Weight of encephalon fifty ounces.

Thorax.—Right lung adherent over entire posterior surface and lower lobe emphysematous; left lung also adherent and emphysematous.

Abdomen.—Liver fatty; mesenteric glands enlarged and filled with tuberculous matter.

The microscopic examination demonstrated the most striking characteristics of the alterations, which pervaded the whole encephalon. The nerve element appeared very much marked by a fine dark granular matter, not dissolved by ether, and becoming more distinct in its granular composition when treated by acetic acid. The connective fibres and nuclei could be made out in the middle of the substance, but the more conspicuous character of the alterations is the presence of large ovoid or spherical products, changing in appearance from a finely granular pellucid mass to a semi-gelatinous or diffluent fluid.

These morbid products are surrounded by condensed meshes of connective fibres, forming a true cystic cavity, from which the contents may be easily removed. In their solid form these products are very friable. The appearance and character in some specimens, indicates that the process of necrobiosis, which had taken place in the circumscribed spot, occupied by the product here described, had reached an advanced fluid stage preliminary to the re-absorption of the cystic contents observed at the later

period of the degenerations, when the true lacunæ replaced the pre-existing morbid contents. We are led to believe, upon comparing the structural changes of the nervous tissue here described, with the similar ones which are displayed in chronic cases of mania and in dementia, that in this instance the disease has reached a chronic stage.

In both cases the morbid process determined a proliferation or hyperplasia of the fibres of the neuroglia, but in none of the instances which have fallen under our observation have we noticed the proliferation of nuclei which constitute an important special character of the sclerotic degeneration, nor have we observed the distension of the lymphatic sheath which surrounds the vessel by the collection therein of fatty globules which are also conspicuous changes in sclerosis. Lastly, this ultimate consecutive atrophic degeneration of the nerve elements met with in the white and gray substance of the brain, does not assume the distinct fatty nature of that proper to a sclerosis. And for all these reasons we believe that the structural alteration of the nervous tissue here considered, presents sufficient characters to constitute a separate and distinct lesion.

The photograph A 1, exhibits in a section through the third left frontal convolution, the degeneration in a most advanced stage. The masses are distinctly isolated from the surrounding tissue, which has partly undergone slightly fatty changes. The concentric layers of connective fibres which form the cavity, in which the masses are contained, appear distinctly around the mass, whose gelatinous semi-fluid aspect contrasts strongly with the granular structure of the rest of the specimen.

CASE 2. *Melancholia, (Chronic.)*—Woman; age fifty-seven; married; eight children; mother was insane; no history of previous physical condition or the existing cause of the insanity was obtained. Patient had been melancholic for some three years; she then improved in health, became quiet, and friends indulged the hope that she was convalescing. Two months before admission she became talkative, noisy, incoherent and destructive of clothing. She refused food, lost flesh and strength, and when brought to the asylum was pale, feeble and anaemic. She took food freely, but continued maniacal; was emaciated, had diarrhoea, and gradually failed, and died in eight months.

Autopsy.—General atrophy of whole muscular system.

Head.—Skull cap, dura mater and brain, normal to ocular examination.

Spinal Cord.—Considerable atrophy of anterior roots.

Thorax.—Patches of acute pleurisy with exudation of plastic lymph at posterior part of left lung. Induration with contraction of both apices.

Heart.—Pericardium normal; slight narrowing of mitral valve.

Abdomen.—Intestines were distended with gas, and there was marked contraction of descending colon for the space of three inches; kidney much congested; other viscera normal.

The photograph shows in a section through the medulla, the character of the degeneration, demonstrated in the different stages of development throughout the nervous centers. Small or larger well defined semi-transparent spots of a granular substance, reflecting the light with brilliancy, but not tinged by carmine, and not soluble in ether, alcohol or chloroform, surrounded by a proliferation of connective fibres indicates the earlier degrees of this alteration. In more advanced stages as represented in the photograph, the mass reaches a semi-fluid condition. It should be remarked that this change, which may resemble a state of sclerosis, differs in its character from the condition described, which in no instance, as we are aware, leads to the complete separation of the morbid product within a well defined cavity, nor to the entire re-absorption of said encysted morbid products.

CASE 3. *General Paresis.*—Man, age 29, single, salesman, not hereditary, accustomed to use of liquor and tobacco. Had always enjoyed good health till four years before admission, when he had an attack of paralysis of the right side; soon after this he had diphtheria, and suffered from the effects of an overdose of acetate of lead, which he was using as a gargle. After two years, he apparently recovered, and continued well for two years. He then gave evidences of mental disturbance, claimed that he had been injured by being struck on the head, though friends had no knowledge of such an occurrence, and began to entertain extravagant delusions, talked of extensive purchases, was so unsteady in gait that he was turned away from the hotel, as he was thought to be intoxicated, ordered carriages and threatened to prosecute the man whom he said injured him. In a few days he became maniacal and unmanageable and was taken to jail. Was there noisy, and disturbed and expressed the following delusions, that he had killed one hundred men, that he was conducting an enormous law suit, that he was President of the United States, Governor of New York, and was carrying on a large war. He was brought to the Asylum on the sixth day after his condition was recognized. He was then

in good flesh, but presented the characteristic symptoms of general paresis. There was marked hesitancy of speech, and unsteadiness of gait, tremor of the tongue, and though he could protrude it, it was only by resting it on the lower lip. The instant it was raised, it was involuntarily drawn back. There was also tremor of the fingers from lack of co-ordination of muscular movement. His delusions of wealth were prominent, and he asserted himself to be worth \$100,000, and his intended wife \$250,000. In about two months he had the first paretic convulsion, which was followed by greater disturbance of speech. After this he improved in both physical and mental condition, and for some six months had such a remission of symptoms that the presence of the disease could only have been diagnosticated by a knowledge of the previous state. He manifested no delusions, but had an appreciation of his condition and of the character of his disease, said to friends who visited him that he knew he was doomed, that he had general paresis, and had seen others, and knew what his fate would be, that he proposed to stay in the Asylum and die where he would be taken care of. The paretic epileptiform seizures then returned, and the patient became maniacal. From this state he never rallied, but gradually failed, and died paralyzed, in fourteen months, about twenty-six months from date of admission.

Autopsy.—Thirteen hours after death. Rigor mortis marked. Body emaciated; cutaneous sloughs on hands, elbow, ankle and back of the body.

Head.—Skull-cap normal; dura mater adherent to skull, thickened, especially along the longitudinal sinus; arachnoid raised in blister-like sacs over both hemispheres by a clear serum; pia mater closely adherent to the cerebral convolutions. Brain atrophied, indurated, ventricles filled with a clear serum. In removing the brain, three and one-half ounces of blood and serum escaped.

Spinal Cord.—Dura thick, pale, at cervical parts, adherent to pia; the whole sac of the dura below, filled with serum. Pia opaque, spinal marrow flattened, apparently diminished; the cervical parts flattened; on transverse section, normal in appearance; gray centers well marked; *posterior* roots normal; the *anterior* cervical roots remarkably diminished, of a reddish color.

The gluteus maximus on both sides partly destroyed by abscesses and infiltrated with pus.

Thorax.—Lungs collapsed, otherwise normal. Heart small, normal.

Abdomen.—Liver friable and fatty, spleen and kidneys normal.

On microscopic examination the anterior roots of the cervical nerves were found in a state of advanced fatty degeneration, the axis of the fibres manifold, ruptured; connective tissue fibres remarkably increased, extensive accumulations of granule-cells in the post lateral columns and along the vessels.

Medulla oblongata very small in diameter, the pyramids small and indurated, olivary bodies normal in appearance, cells of the corpora dentata well pronounced.

The roots of the hypoglossus highly atrophied, its fibrillous structure barely marked and visible, the large ganglionic centers of the hypoglossus near the septum very small in number and throughout in a state of pigmentary degeneration. Roots of the vagus and facialis nearly normal in appearance, only a slight pigmentary degeneration of the centers.

Sections of the third anterior convolution on both sides of the brain, showed a general atrophy of the nerve elements. The pyramidal cells diminished in number, though some of them exhibited unusually large dimensions, especially in the parietal convolutions of the left hemisphere. The spindle-shaped cells of the inner layer frequently in a state of granular degeneration. Numerous deposits of fatty and crystalline masses in the gray substance and of irregular proteinous bodies between the fibres of the white substance of the convolutions.

The vascular system exhibited extensive degenerations. The walls of the smaller vessels were frequently found thickened, swelled and infiltrated by a homogeneous hyaline substance. In other cases the larger capillaries showed themselves manifold, curved, distending the adventitious membrane between the curves and giving rise to accumulations of lymphatic elements, fatty granules and pigment bodies, (see plate B 1.) others were surrounded by a dense layer of nuclei, surpassing three or four times the inner space of the vessel, (plate B 2.) and others involved by cell-bodies of a spongy-like structure (plate B 3.)

Photograph plate, C 1, shows a section through a part of the pons Varolii near the roots of the trigeminus, with numerous deposits of proteinous bodies between its fibres and the surrounding tissue.

Plate C, 2, section through a part of the medulla near the raphé with colloid bodies.

CASE 4. *Epilepsy with Dementia.*—Man; age nineteen; good habits. Had epilepsy for nine years prior to admission. Nothing further was known of his history. His mind was feeble; he did

not converse or manifest any interest in his condition or surroundings. While in the asylum, he had almost daily seizures, lost control of the movement of his bowels and bladder, retained his bed most of the time, and refused all food except bread and milk, and this he took freely. After eighteen months he died in a fit.

Autopsy.—Head.—Dura-mater thickened, and several bony plates were found on inner surface, two of which had sharp projections. They were attached near the longitudinal sinus, one on either side. The largest was one and one-quarter inches in length, and one-half inch in width. The longest projection was about three-sixteenths of an inch, and impinged on the pia-mater, but had not lacerated it. The interior surface of all the plates was roughened and ridged. They were held in position by fibrous bands attached to the dura mater. The pia-mater was much engorged. Anteriorly, there were points of extravasated blood beneath the membranes.

Thorax.—There were several cicatrices, a small abscess, and tuberculous deposits in apex of left lung; right lung normal; heart enlarged, soft and fatty.

Abdomen.—Liver normal; kidneys congested and filled with blood. A large amount of bloody serum escaped from spinal canal, and the whole substance of cord was deeply congested.

The microscopical examination, demonstrated in the medulla, in the olfactory bodies and in the third left anterior convolution as well as in other sections of the brain very fine, fatty, granular degenerations, interspersed with amyloid corpuscles.

Photograph D 1, exhibits a section through the spinal cord, opposite first cervical vertebra, showing portions of the posterior columns. The multipolar cells are filled with pigment. The granular amorphous matter is considerably increased, and mixed with very fine, transparent fibrils of connective tissue and very small connective nuclei. This alteration is identical with that described by Dr. Echeverria.*

D 2. Section through the middle cervical ganglion of the sympathetic showing the same fuscous or pigment degeneration of the ganglion-cells, with a very marked hypertrophied condition of the connective tissue.

CASE 5. Sub-Acute Mania, (Syphilis.)—Man; age twenty-five; intemperate in his habits. Father and mother had for years kept a low drinking saloon and house of ill-fame, and

* On Epilepsy, drawn by him, pages 86 and 87, plate 5.

both had served sentences in state prison as receivers of stolen goods. After their release, the husband obtained a divorce from his wife and lived with another woman, to whom he claimed to be married. With her he resumed his former occupation. The place was well known to the police as a resort of criminals and abandoned characters. The patient had received a common education, and been employed as clerk in various offices, and on the canal. From his own statement he had led a dissolute life, and had contracted venereal disease, which his condition, on admission, verified. His health having failed, he came home, boarded with his father, and engaged in the insurance business, but without success. He continued his evil associations, and gave himself up largely to drinking and dissipation. During this time he often threatened the life of his father and stepmother, secluded himself in his room, and shortly before admission had symptoms of fever, was described as delirious, out of bed and around the house with only his under-clothes on, drank freely of liquor, became abusive, threatening and violent. The police were called in at times to quell the disturbances. One day a boarder in the house hearing a noise in the room occupied by patient, went up stairs and found him seated at the head, with a pistol in his hand. The patient discharged it at him, and the bullet passed through the right forearm. The injured man retired and soon after heard three pistol shots fired in quick succession. The police, summoned by the noise, went into the patient's room and found the stepmother lying on the floor. A ball had penetrated the chest, passed through the right lung, removed a portion of the wall of the aorta and lodged in the left lung. The patient was seated upon the side of the bed reloading the pistol. He was removed to the jail, and on the inquest gave a contradictory, confused statement of the affair; said; "the woman was trying to get into the room to kill me; I cocked the pistol when I saw she was going to kill me; I shot the bullet and it went plumb through her heart." He also made other statements giving a different version of the affair. An investigation was made before the county judge; he was declared insane and sent to the asylum. On admission gave a very long history of his case, justified the shooting on the ground "that his stepmother had attempted to poison him, and that God had ordered him to send her to hell without a moment's warning;" that he had shot the man "because he had brought him bad water to drink." He was thin in flesh; conjunctivæ pearly, tongue heavily coated, features sharp and skin pale. He had two sinuses opening into palm of left hand, one be-

tween ring and fourth finger of right hand, one on left foot near big toe, and one in same position on right foot. For the first few days he was about the ward, talking incessantly, maintaining his assertions as to the killing, and its justification, then became more feeble; was complaining, fault-finding, whining in speech and childish, asked for changes in room, in bed, in diet; ate and slept well, though he asserted he did not. After some two weeks there appeared an extensive swelling of left leg and foot, resembling, somewhat, phlegmonous erysipelas. The skin was raised in large patches, and blood and serum were effused beneath. There were some ten or more sinuses in region of buttocks, discharging a purulent serum. The patient grew more feeble, and was evidently failing. Three days afterwards, at about midnight, he had an extensive hemorrhage; when physicians reached the bedside the bleeding had ceased. He was pale and cold, complained of chilliness, and teeth were chattering. Under the buttocks was a large pool of blood, and the abdomen was swollen and painful. He seemed perfectly conscious that he was sinking, and died at six o'clock in the morning.

While in the asylum no sign whatever of aphasia or amnesia was displayed by the patient. He had delusions, circumscribed to a limited range of ideas, was very restless but quite talkative and capable of giving a clear account of circumstances around him, and was conscious of his condition up to the time of death.

Autopsy.—Abdomen tympanitic. Left leg much swollen by infiltration of serum and large ulcer eight by four inches. Another ulcer extended over arch of left foot toward internal malleolus. A deep sinus existed near head of left fibula. On the right were two sinuses, one opening between great and second toes, and another more superficial near ankle joint. On right knee was an inflamed spot two inches in diameter, the skin was elevated by dark colored effusion beneath. A deep sinus opened between thumb and index finger of left hand, and another between ring and little finger of same hand. There was also one corresponding to this on the right hand. The sinuses opening in sacral and gluteal region, some ten in number, were found to communicate with each other, and formed a common abscess. Some of them were filled with thick yellow pus, and others with partly disorganized blood-clots.

Head.—Calvarium thin and soft; slight adhesions between duramater and arachnoid; small amount of serous effusion under arachnoid; more abundant about medulla and base of brain. Brain tissue pale.

Thorax.—Small quantity of serum in pleuritic cavities. Lower lobe of left lung hepatized. Pericardial sac distended with about three ounces of a greenish fluid.

Heart.—Substance pale; right ventricle filled with frothy, watery blood; left ventricle empty; valves normal.

Abdomen.—Whole cavity distended with pus and serum, of a greenish color. Omentum firmly bound to intestines, and these to each other by adhesions. On attempting to remove the omentum the intestines were torn through. The ileum was gangrenous near cæcal valve, and other portions of it were deeply congested and softened. Transverse colon highly inflamed; mesentery deeply congested, and the gland much enlarged and filled with cheesy material. Peyer's patches enlarged and ulcerated; pelvic cavity filled with a very offensive yellow pus; pancreas soft and of a yellow color; spleen contracted. Both kidneys were enlarged and capsules easily detached.

Liver.—Convex surface covered with a thin layer of pus and lymph; tissue pale and fatty.

Microscopic examination of liver showed extensive fatty degeneration. In fresh specimens, treated with ether, fat was dissolved.

The tubuli-uriniferi were enlarged and contained either an entire cast, or a portion of one, and transverse sections showed them choked up with debris of epithelium. Connective tissue was granular, particularly about the Malpighian bodies. The pancreas was in a state of fatty degeneration.

The microscopical examination evidenced that as well as every viscera of the individual, the nervous centers, also, had undergone the fatty degeneration observable in constitutional syphilis.

The contrast between the fatty degeneration and that which seems to be an attendant of insanity was very marked in this case from the respective reaction of each morbid product.

PLATE E 1, Shows a section through the left frontal convolution at the union of the gray and white substances. The dark outline of the numerous globules represented, have a very brilliant and transparent appearance in the specimen, since they are of a fatty nature.

PLATE E 2. Section of the medulla across the olivary bodies. One of the large masses is shown split up and others developed in the midst of thick meshes of fibres and encroaching upon the adjacent nerve fibres. The same condition existed in regard to the posterior nerve roots of the spinal cord.

CASE 6. *Acute Mania*.—Woman, age 36; widow. Patient was usually a healthy woman, but suffered great anxiety from domestic affliction. Within a few years one child was drowned and her husband was killed by lightning. About two months before coming to the asylum became melancholic and depressed; was suspicious, said people were conspiring against her. She soon became cross and irritable, was profane, obscene, noisy and maniacal. The following was her history on admission: Pale and anaemic, pulse rapid and feeble, skin cold, complained of pain over upper portion of spine, and headache; pressed her head with both hands, said it would burst. She continued noisy and was too incoherent to be understood, was restless, appetite was variable and she slept irregularly. Two days previous to death she became more disturbed, threw herself about in bed, complained of the intense pain in head, and opposed care. She suddenly sank and died.

Autopsy. Body well nourished. *Head*—Skull cap normal; adhesions between the membranes. Pia mater opaque, congested, distended with blood over the whole surface of the brain and between the convolutions along the longitudinal sinus, raised by slight effusion of serum. After removing the brain, about two ounces of serum remained in skull. Brain substance softened. The gray matter of the convolutions of both cerebrum and cerebellum reddish in appearance, gray degeneration of the pons Varolii and medulla. The smaller nerve cells of the outer layers of the gray substance of the convolutions of the hemispheres and the Sylvian fissure and anterior convolutions were normal in appearance, but most of the larger cells of the subjacent layer, especially of the hemispheres and the Sylvian fissures, were puffed out and remarkably enlarged, their contents forming larger globules distributed in half circles around the enlarged transparent nuclei, the nucleoli of which were only very rarely found pronounced. In some specimens taken from the convolutions of the fissure of Sylvius, no evidence of an outline of the cells could be detected. Weight of brain, 42 ounces.

Thorax. Lungs—The lower lobes slightly congested, otherwise normal; heart, normal.

Abdomen. Liver—Normal in size, friable and fatty, the hepatic cells were entirely filled with oil globules, the vessels were atrophied and surrounded by dark pigment cells. Kidneys, normal. Spleen nearly twice the normal size. Intestines; the transverse colon crossing the peritoneum at about the middle line; small intestines slightly congested in several spots; urinary bladder empty and normal.

Photograph, plate F, show some of the conditions of the capillaries in the case of acute mania.

Plate F, 1, the earliest accumulations of granular masses around the nuclei of the adventitious membrane.

Plate F, 2, further advanced stages, a part of the vessel surrounded with granule-cells.

Plate F, 3, entire involvement of the vessel by the fatty granules. The accumulation exhibiting a crystalline, and atheromatous condition.

PSYCHICAL OR PHYSICAL.*

BY C. H. HUGHES, M. D., ST. LOUIS.†

We live in an age of scientific surprises, especially within the realm of those sciences which have to do with the origin and nature of man, and are "making grand and not altogether fruitless efforts," as Mr. Herbert Spencer ‡ truly says, "to unroll the secret of the human mind," but thus far the microscope, the ophthalmoscope, the reagents of an advanced and advancing chemistry, and all the appliances of modern psycho-physiological and psycho-pathological research, have seemed to reveal to us but dimly, the neurotic pathway over which thought travels within the brain, or the actual dwelling place and origin of our specific mental actions. With these telescopic aids to mental vision, the cerebro-histologist obtains an enlarged, although not altogether satisfactory view.

As Moses was permitted to look over into the promised land, so we are enabled to look within "the dome of thought," and locate the dwelling place of mind *in the aggregate*, in the free surfaces of the ventricles, and convolutions of the hemispheres of the cerebrum, but not to possess and occupy the particular portions of the brain, concerned in the special functions of mind.

* We have purposely chosen the language of Dr. Maudsley, wherever we could substitute it and express our own views, hence the number of quotations from this author in the paper.

† Read before the Association of Medical Superintendents of American Institutions for the Insane, at the meeting held in Nashville, Tennessee, May 19, 1874.

‡ Preface to philosophy of style.

We always discover an intimate relationship between psychical manifestations and physical action, but how mind acts with and through, and how it is influenced by and with the molecules of the brain, we have not been enabled to determine in a manner so satisfactory as to leave the reason and consciousness no room for dissent.

As the field of scientific research enlarges, and investigations increase therein, it is not improbable that some of the earnest votaries of psycho-pathological and physiological science may yet trace the actions of the mind to their true locality in the brain, and reveal in very truth the ideational, emotional and sensory cells, their chemical, anatomical and isomeric states, by perhaps an enlargement and multiplication of our present methods of research. The thought molecule, if it ever be found, will probably be discovered to be more subtle and infinitesimal in its organization, than any nerve cell yet revealed to us by microscopic vision. The ideational cell may ever remain what the atom is to chemistry, a thing of conjecture, resting solely upon plausible supposition. That there are, however, cerebral thought molecules which have to do with the evolution or manifestation of thought in *mens sana* and in the manifestation of *mens non sana*, investigation up to the present day, gives us just warranty for the conjecture, and whether we shall ever be able to demonstrate the fact or not, beyond the possibility of doubt, we may as safely assume this, as to assume the ultimate atom.

The conjecture is as plausible as the undulation, or the emanation theory of light, or the undulation theory of sound, or other theories in physics or chemistry. The doctrine of molecular disintegration accompanying the manifestation of thought, is the analogue of that other doctrine, first advocated in 1852, by my

gifted friend and preceptor, Dr. I. H. Walters,* late Professor of Physiology in the St. Louis and Missouri medical colleges, that muscular disintegration is the condition of muscular action, and which was incorporated by Dr. Carpenter in his physiology, and is now generally accepted as true by all physiologists.

There can be no doubt that the general result of cadaveric examinations, whenever mental derangement leaves any pathological sequelæ, is to discover lesions of the cineritious matter and the ventricles, along with those destructive changes elsewhere found in the cerebral mass, (extensive softening and other lesions of the white matter being often unaccompanied with insanity,) though Rokitansky, Andral, Virchow, Vanderkolk, Leidersdorf and others speak of inflammation of the dura-mater in connection with insanity; and circumscribed affections of each and all the meninges, and every part of the brain have been described co-existing with partial or general mental aberration, by accurate and creditable investigators in psycho-pathology. This is, perhaps, the experience which all of us have gained in the dead house, and though we are not in a position, as regards our knowledge of the morbid appearances of the brain, to frame a proper nosology, embracing all the forms of insanity, as discovered to us in the different symptomatic manifestations; and though we cannot find an absolutely unerring definition of the disease, based solely upon the pathological evidences, it is nevertheless reasonably certain that the whole brain being the recognized organ of the mind in its healthy, natural action, does not cease to be the organ of the mind when its manifestations are disordered and unnatural; and it is, perhaps, beyond a reasonable doubt that "im-

* Thesis for degree of Doctor of Medicine, by I. H. Walters, University of Pennsylvania, 1851.

portant molecular changes do take place in those hidden recesses of the brain," or those nervous channels of communication which lead to and from the mind, but to which we have not yet, by sight of science, been enabled clearly to penetrate; but which the scalpel, the microscope, and the re-agents and appliances of advancing chemical physiology and pathology, may probably some day more intimately and clearly reveal to us, and that those atomic changes *accompany, precede and follow* the rational and irrational manifestations of mind. That they will be found to be the media through and by which both the healthy and morbid, or natural and unnatural impressions and expressions find access to and egress from the mind. "Matter" and "force" in this sense, are to us "necessary co-existent in human thought; to speak of change in one may be admitted, as Maudsley asserts, to imply change in the other;" and I think we may confidently look to future revelations, through psychopathology and physiology with the chemical, microscopic and other aids which future science is to bring to our assistance, for a correct and satisfactory material explanation of all the *phenomena* of the mind, natural or unnatural, healthy or diseased, manifest to the world without. I mean the *manifestations only of mind, not the mind itself*. I apprehend that mind can never be demonstrated to be the product of matter, any more than matter can be proved to result from mind. Neither of these propositions seem to us capable of demonstration.

It is not always necessary, however, to demonstrate a proposition before we can accept it as true. A proposition* may be accepted as true when the mind cannot conceive of its negation by the facts of science. It may not be reachable by a process of reasoning, and yet be

* Herbert Spencer.

an-admitted truth to our consciousness. We have in this world to accept many such unreasonable but irrefutable truths.

Forms of matter may depend upon mind for the appearances they present; so may and do forms of thought depend upon matter for their manifestation or expression. The germs of thought and thought molecules may have a simultaneous birth, (if we can conceive of the birth of either,) and together develops and mutually act and react upon each other in their manifestations. In this sense we agree with Dr. Maudsley—that brain and thought are co-existent. That they are so, will perhaps always remain to finite comprehension as great a mystery as that God and matter co-exist, and which we regard as creator and created. It would be as logical to assert that God came *from* matter because he is only manifest *through* it—the matter and force co-existing so far as we can discover by the light of science alone—as to assert that mind proceeds *from* the matter with which, by the aid of science, we discover it to be invariably in association. We glean from revelation that “the world by wisdom knew not God,” nor has the wisdom of unaided science yet revealed to us more of the knowledge of the nature of God than we received before science had its birth. Science can not, by any of the revelations it has thus far given, shows to us the priority of either God or matter. Through the teachings of revelation and the argument of design and designer, we may believe that God created matter; but science, by its own light alone, can neither affirm nor deny that “the heavens declare the glory of God, or the firmament sheweth his handiwork.” Science deals with tangible and material facts, and its conclusions must ever be essentially material. It may, however, with the light of revelation before it, confirm the truth

of revelation that God preceded matter and created it,* without disjointing any of its established truths, or retarding its progress toward a solution of all those problems which it is reserved for man yet to solve in the arcana of nature.

By light of revelation and the attestation of the general innate consciousness of mankind and not by scientific investigation, we perceive that "there is a spirit in man," which though it manifest itself in "as we see by the sight of science," and is impressed, by decaying cerebral molecules, is nevertheless to be recognized in man, in the same manner as the impress of the Creator's spirit may be seen in the works of animate and inanimate nature.

We do not prove the precedent or consequent of God and matter, or mind and matter, but may assume either, from the facts which science, unaided by revelation, gives us, and be equally correct in our logic. We believe in the importance of science on the subject. We do not know that mind is the highest development of force to which all the lower natural forces are indispensably prerequisite.† We would rather alter the phraseology and say the highest development of matter is indispensably requisite for the perfect manifestation of that intangible and immaterial force we call mind, though it may assuredly be laid down as a truth, that "whatever may be the real nature of mind and of its nature, we shall probably forever remain ignorant" while retaining our own mortality. "It is most certainly dependent for its every manifestation on the brain and nervous centres, and scientific research is daily disclosing more clearly the relation between it and its organ."†

* In the beginning God created the heavens and the earth. † Maudsley.

Anatomy and physiology teach us pretty thoroughly what are the nature and function of the brain, as a whole, but the mind, as Maudsley correctly observes, cannot be observed and handled and dealt with as a palpable object, like electricity or gravity, or any other of the natural forces, (if these may be properly termed "palpable objects.") "It is appreciable only in the changes of matter which are the conditions of its manifestation." We may concede the pre-existence or co-existence of mind in connection with its manifestations through matter, as we accept an axiom as a self-evident truth, incapable of and not requiring demonstration by process of reasoning; and we are still prepared to admit the truth of the revelations which modern science seems to have made in regard to the change taking place in the substance of the brain during thought; that "in the performance of an idea as in the performance of a movement, there is a retrograde metamorphosis of nerve element, and that the display of energy is at the cost of the highly organized matter, which undergoes degeneration, or passes from a higher to a lower grade of being," and that the retrograde products are, so far as is at present known, very nearly the same in cerebral as in muscular disintegrations, "under the influence of functional activity, and arrive at the logical and perhaps correct conclusion, that disintegration of the cerebral molecules is the law of the display of mental power."

We can subscribe to the doctrine, that with each display of mental power there are correlative changes in the material substratum, (if we choose so to designate the brain,) and admit without subscribing to the doctrine, that mind is the product of matter, under any condition of change, that every manifest *phenomenon* of mind is the result or accompaniment to our senses, "of

some change molecular, chemical or vital in the nervous elements of the brain." This is only making the brain (what has long been admitted, and what science seems fully to demonstrate,) the material organ of the mind,—a material medium through which it impresses itself upon matter, and through which it communicates with other minds.

The proposition that nerve change precedes mental action, is surely not proven in the fact that, "chemical analysis of the so-called extractive of nerves testifies to definite change or waste through functional activity," surely this is not proven in the fact that, "the products of retrograde metamorphosis are lactic acid, creatin, uric acid, hypoxanthin, formic and acetic acids," or that the products of the metamorphosis of nerve element after prolonged mental exercise are recognized by an increase of phosphates in the urine, or that the contents of nerve and muscle, neutral during rest in the living state, become acid after death, or after great activity during life, nor by any other of the chemical facts connected with the decay of nerve tissue, with which we have of late years become familiar.

We may explain the exhaustion following excessive mental labor, and the breaking down of brain in extreme cases, "as in recognized insanity, by supposing an idea to be *accompanied* by a correlative change in the nerve cells,"* and yet the supposition brings us not much nearer to a correct comprehension of that "marvelous energy which can not be grasped or handled, and which we call mind," than if we had not made the supposition.

We may concede the supposition to be a universally admitted fact, established by adequate and indubitable proof and still mind remains unobserved, unfit, un-

* Maudsley.

probed by any of the implements of science; and as science can probably never devise methods of investigation, as delicate and subtle as mind itself, it is probable that mind, aided by revelation, and the testimony of consciousness will have to be the interpreter of its own nature, employing all the lights which science emits to illumine the avenues which lead to and from it, interpreting by sight of science and self interrogation, the influences which operate upon it, and the laws which govern its manifestation, and "the display of its powers."

Science will doubtless reveal to us, if the present evidences of the fact are not adequate to convince us, that the birth of every idea (if we may so speak,) to the outer world and to self-consciousness, is accompanied with the death of cerebral cells, and that the death of these cells is the condition and accompaniment of the manifestation of thought.

Under this view (so speaking for want of better phraseology,) we may consider that * "matter and the power of intellectual manifestations, have co-ordinately developed, during the ages that have passed and are still in the process of development;" or, with Dr. Maudsley, we may say that "man's life truly represents a progressive development of the nervous system, none the less so because it takes place out of the womb than in it," and that "co-ordinate action always testifies to stored up power, either innate or acquired," by which I understand latent nerve capability for *manifestation of power*, without abandoning the idea maintained by the ablest physiologists of the day, that mind has also a presiding power over matter.

* Dr. Henry Landor, paper on Insanity in relation to Law, July 16, JOURNAL OF INSANITY.

Under this view we may admit that "just as a good liver secretes good bile," (provided the conditions of the blood are favorable,) "a good candle gives good light, and good coal a good fire," (provided the two latter have a good supply of oxygenated air, and the primary conditions to the development of light and heat, *ab initio* friction, chemical action, origination,) so does a good brain (all other conditions being favorable,) give the manifestations of a good mind, without admitting that* "when the brain is quiescent there is no mind," and without regarding the mind as nothing more than "the result of cerebral action," as maintained by those who would merge the psychical in the physical in man.† "Granted that a definite thought and a definite molecular action in the brain occur simultaneously, we do not possess the intellectual organ, nor, apparently any rudiment of the organ which would enable us to pass by a process of reasoning, from the one phenomenon to the other; they appear together but we do not know why."

There is a power which precedes and ignites the flame and the fire. There is a spark of mental and spiritual light in man, which antedates as well as accompanies the disintegration of the cerebral mass.

We are persuaded that there is a mental vision in man, superior to that of the eye and the microscope, a mental touch, penetrating further into the nature of mind than the scalpel of the histologist, or the reagent of the chemist can reach, by which he sees and feels and knows that he is something more than matter, or the offspring of matter. Our consciousness attests this, we feel it to be true, and consciousness is as the poet has said of faith, "a higher faculty than reason,"‡ or rather more accurately, we might say, the basis of all the higher mental faculties. Saying that I feel pain, or

* Hammond.

† Tyndal.

‡ Bailey's Festus.

hear a sound, or see one line to be longer than another, is * "saying that there has occurred in one a certain change of state, and it is impossible for me to give a stronger evidence of this fact, than that it is present to my mind. The tissue of every argument is resolvable into affections of consciousness that have no warrants beyond themselves. When asked why I assert some meditately known truth, as that the three angles of a triangle, are equal to two right angles, I find that the proof may be resolved into steps, each of which is an immediate consciousness that certain two qualities, or two relations, are equal or unequal; a consciousness for which no further evidence is assignable than that it exists in one, nor, on finally getting down to some axiom underlying the whole fabric of demonstration, can I say more than that it is a truth of which I am immediately conscious. * * * *

For each truth of geometry we are are able to assign some under truth in which it is involved; for that under truth, we are, if required, able to assign some still under and so on.

This being the general nature of the demonstration by which exact knowledge is established, there has arisen *the illusion that knowledge so established is knowledge of a higher validity than that immediate knowledge which has nothing deeper to rest on.* The habit of asking for proof and having proof given in all these multitudinous cases, has produced the implication that proof may be asked for these ultimate dicta of consciousness into which all proof is resolvable.

Consciousness is the primitive rock upon which must rest every secure fabric of reason, and we may say here what † Herbert Spencer says of all philosophy, "if it

* Herbert Spencer, *Test of Truth*, p. 384.

† *Test of Truth*, p. 412.

does not avowedly stand on some datum underlying reason, we must acknowledge it has nothing on which to stand." "The result of refusing to recognize some fundamentally proved truth is simply to leave its fabric of conclusions without a base."

In one creative act, the material and the immaterial in man were brought forth, (according to the story of revelation,) and they have ever since been so intimately blended, that science,—though prying into the secrets of nature since the world began,—has not yet discovered where the one ends and the other begins. Corpuscles, molecules and cells may constitute the whole of man, but science has not demonstrated it to be so.

If science should ever demonstrate thought to be material, it would probably be found to be of so subtle a form of materiality, and possessed of so much volition in many of its manifestations, as to confound, confuse or abolish our present ideas of matter, and alter our definition of its properties; a form of matter much akin to that something which we all recognize as existent from all eternity, and to which we could, perhaps, give no better name than mind,—the impress and image of God.

Perhaps we should then find our logic justifying us in accepting the idea as true, that so subtile a form or "force of matter" as thought, would have to be entitled to precedence in the order of existence over the cruder forms manifested to our senses. The formative stages of matter, (so to speak,) and the doctrine of disintegration as the origin of "mind viewed in a scientific sense," might have to be reversed or exploded. We should view mind in relation to matter much as we now do, and as Locke viewed God in relation to mind and matter. "There is no truth more evident than that something must be from all eternity. I never yet heard

of any one so unreasonable, or that could suppose so manifest a contradiction, as a time wherein there was perfectly nothing. This being of all absurdities the greatest, to imagine that pure nothing, the perfect negative and absence of all being should ever produce any real existence."

The chemical and microscopical study of brain and nerve cells may possibly yet reveal to us the exact line of demarkation between purely physical and psychical phenomena; but so long as consciousness exists to attest the truth of conclusions derived from facts, and volitional power remains to the human mind to pursue investigations and accept or reject as truth, their results, so long will psychology and physiology go hand in hand in the study of mind. We cannot by any process of science account for the birth of tangible matter. Science can only deal with its forms; its varied and ever varying changes of state.

The study of the universe of matter, its disintegrations, aggregations and motions, leads to God. Here science must ever stand awe-stricken and confounded in the presence of the incomprehensible, omnipotent, immaterial, who either gave matter its existence, and impressed upon matter its laws, or received from matter, and its laws His existence, if the light of revelation be excluded. We believe, not from science, but from revelation, that matter came from God; and all the facts which science teaches relative to the material universe, do not disprove this belief. The study of the brain cells, their structure, development and decay, leads us in the same manner to view the incomprehensible, immaterial, volitional mind; and man stands in the presence of his own immortal spirit, so intimately blended as mind is with matter, astonished and confounded.

We choose to accept as true the revelation that "there is a spirit in man," in the sense in which the

term is now distinguished from matter, until science shall give us more light; and to regard that spirit as influencing and influenced by (in its manifestations to the world without,) the material media,—the brain, nervous and whole physical system. Accepting this view as true, all the facts revealed by science only tend to confirm it.

A part of that "divinity which shapes our ends" resides in the power within us, which disposes of and distributes the thought molecules of the ideational centers; forming ideas, impressing them upon consciousness, and transmitting them as "tangible thought products," through molecular disintegration of the cerebral cells to the world without, or storing them away as the carriers of reserve mental power, for still further use by the ideational centers. Man both uses and is used by his brain; he both modifies and is modified by his organization.

The tyranny of a good or bad organization and the power of the most indomitable human will, both play their respective, but mutually dependent parts, in the drama of life. Nevertheless, man is to a great extent the creator of himself; and has been not inaptly termed "the architect of his own fortune." Within the limits which God has assigned him, he may dwarf or enlarge his capacity and powers, through changes in the convolutions and structure of the brain he employs, which to the mind is as the weapon to the warrior, the pencil to the artist, or the implement to the mechanic. The volitional mind by its manner of using the brain, may add to or take away cerebral atoms, and thus diminish the power of mind manifestation. The one process is mental neglect, the other is education. The volitional part of the mind, by the manner in which it makes use of material agencies and immaterial impressions—by the man-

ner in which it throws the whole mind in contact with, or withdraws it from material and immaterial influences, may cause the mind to grow in power of manifestation through changes in the substance and quality of the brain. The volitional part of the mind in youth may predetermine to a great extent what it shall be in age, and what the body shall be.

Perhaps by "taking thought man cannot add one cubit to his stature," but by taking thought of the kind and amount of mental and physical exercise, and quality and amount of food, and rest and sleep, essential to the development of the fullest manhood, he may make himself as a man, almost what he will. His power to accomplish will be limited only by the limits God has assigned to the human race, and modified only by the degree of perfection or imperfection inherited in his organism.

The physical state of the body or brain at any particular period of life, serves to encourage or depress action and modify results, but they have not been proven to be the origin of mental volition, though they influence or modify its manifestation.

We have admitted the invariable connection between brain power and the power of mental manifestation; but the brain is still, in our view, the servant of the mind, though the latter is influenced by the states of the former, in the manifestations it makes to the world. The brain serves the mind, and yet the mind is dependent upon the brain, just as the master is, in a sense, the servant of his servants and dependent upon them.

A good general's success depends upon the number and condition of his men as to health, position, equipment, &c. They are the exponents of his military skill. He may have the power and be capable of overthrowing the enemy with the means at his command,

but if an epidemic attack and decimate his forces, impairing the organization upon which he depends, he cannot demonstrate his power—failure may take the place of what might otherwise have been victory.

The physical brain of man, in our opinion, can no more be demonstrated to be the origin of mind, than can an army be proven to be the commanding general, though every integral part of it be power or a source of its manifestation. Through the material organization of man he impresses himself upon the material world, and communicates his spirit's thoughts and emotions to his fellows.

An intelligent power presides over and is influenced by the destructive material changes, by which the power of steam is made manifest in the ten thousand forms of mechanical adjustment, known to the world; so an intelligent and voluntary power, influenced in its communication with the material world by cerebral states—molecular disintegration and brain imperfection—is manifest in the action and communication of mind upon and with the material and moral world.

There are many more things in the reciprocal action of mind and organic element, than “are yet dreamed of in our philosophy,” and we fully concur with Dr. Maudsley that—

“Notwithstanding we know much and are daily learning more of the physiology of the nervous system, we are only on the threshold of the study of it as an instrument *subserving* mental function.”

We regard it as too probable for the successful refutation of science, that He who ordained the sciences as He ordained the planets to revolve in their orbits, has set a line of demarkation between finite and infinite penetration, and said to mind as he has said to the sea, “thus far shalt thou go and no farther,” though we

may never discern the boundaries of that omnipotent limit.

We may, without surrendering pre-existing views, regard mind, as manifested to us, as so closely blended with matter in the form of brain cells, that we can not tell where one ends and the other begins—can not draw a line of demarkation. We may therefore even speak of mind and brain as practically identical. We may consider a living, material organism as essential to the manifestations of mind, and the different manifestations or expressions of mind in health and in disease, as dependent upon the physical condition of that organism, just as the will power is dependent upon the healthy state of the organs which it controls for its expression or manifestation.

We consider mind in relation to cerebral molecular disintegration of the brain, and will power in relation to the muscular decay, which precedes or accompanies the "display of force," what the throttle valve is to the steam engine, or the power which regulates the galvanic battery is to the disintegration of the galvanic plates and the display of electric force. Defective machinery always works wrong, and if we see a steam engine out of fix and working contrary to its usual manner, or not working at all, we do not conclude that the engineer is sick, or dead, or absent, but that some screw is loose, or pivot is broken, or the fire is out, or the steam is down.

In the machinery of the mind and the physical organism, as in the machinery of God in the physical universe, the motive agent is hidden from our view. If the brain does not act aright, we may infer that some cerebral screw is loose, some lack or irregular distribution of sanguine fire, some disproportion in the waste and repair of cerebral molecules exists, but we can not logically conclude that the mind itself, which we see not, handle not, is impaired or diseased, because we can not know.

Diseased mind is a convenient form of expression by which the mind, in its manifestations to our perception, is altered, just as the stars are obscured to our sense of vision, when the light of the sun veils them for the day. The emotions and manifestations of mind to the individual and to those about him, are changed by the obscuration or destruction of his senses.

The individual is not the same with sense of sight, or touch, or taste, or smell, or hearing impaired or destroyed, as before ; and sometimes the change as it manifests itself to us is so marked, that we call it insanity.

In the language of Dr. Maudsley again, "We recognize how entirely the integrity of the mental functions depends upon the bodily organization ;" and as physicians we cannot afford to loose sight of the physical aspects of mental states, if we would truly comprehend the nature of mental disease. We "recognize the existence of an intelligent mental force, linked in harmonious association and essential relations with other forces, but leading and constraining them,"* and led and constrained by them in its manifestations."

We must also recognize the fact that the conscious mind of man is blended, in unity of development and action, with the unconscious life of his physical nature. We need neither assume that "mind is a function of matter," or that "matter is a realization of mind," in order to arrive at a correct general understanding of mental disease.

"We do not assume an immaterial liver behind the hepatic structure in order to account for its functions,"† but we assume and do know of a material fluid out of which the bile is secreted, and we may as logically assume the existence of an immaterial mind, manifest through the function of the brain, as to assume the ex-

* Maudsley.

† Maudsley, B. & M., p. 61.

istence of a material pabulum in the blood before demonstrating it, out of which is formed all the special fluids secreted by the glandular organs of the body. The one is as self-evident as the instinctive knowledge upon which the existence of the soul is based, the other is evident to the senses. The one is simply an ocular demonstration, the other a fact evident to consciousness. The hepatic secretion is a tangible product, and we could reasonably infer, if we could not demonstrate, that it came from a tangible source. Thought is intangible and we may more reasonably infer that its source is intangible than that it is the product of tangible matter.

Nevertheless we may, for the purposes of a correct understanding of what we term disease of the mind or insanity, acknowledge "the essential unity of mind and body," as mind can not be manifest to us except through the medium of a living physical organism.

This view of the relationship between mind and body enables us to approximate to a correct understanding, in a general way, of the nature of the disease of mind as we term it.

The proof that the brain is the organ of the mind, whether the latter be an intimately blended psychical entity, or an emanation from the former, and therefore physical, is pretty satisfactory to all physiologists; we need not, therefore, reproduce the proof, and the evidence has also been deemed quite sufficient, by modern psycho-pathologists, to warrant the belief that the cerebral seat of insanity, is oftenest if not invariably, found in some direct or indirect involvement of the gray matter, or free surfaces of the brain, though with our present means of investigation and the still comparatively meager light reflected from the dead house, we do not detect cerebral lesions in all cases of mental derangement.

We do in a majority of instances, and we probably should in all instances if our means of investigation were more accurate and satisfactory. I think we need not conclude that the probability of finding definite lesions in the brain to account for ante mortem changes in connection with deranged mental manifestation, is "outside the realm of possibility," as Leidersdorf has conjectured.

Maudsley most happily expresses the prevailing sentiment of the profession, in regard to the dependence of deranged mental manifestation as witnessed in insanity upon morbid physical states of the brain, whether detected in our examinations of the cadaver or not.

* "There may be, unknown to us, save as guessed from their effects the most important modifications in the molecular activities of nerve element, changes in the chemical composition and actual defects in the physical constitution of the nerve centers."

"Close to us, yet inaccessible to our senses there lies a domain of nature—that of the infinitely little—the operations of which are as much beyond our present ken as those that take place in the remotest region of space to which the eye with all its aids can not reach, and of which the mind can not conceive." Or, as John Locke says: † "if a great war for the greatest part of the several ranks of bodies in the universe escape our notice by their remoteness, there are others that are not less concealed from us by their minuteness." This is as true to-day as it was in the days of the great philosopher. What lies within our ken is but a small part of the universe of mind and matter, and "our reason carries us very little, if any beyond certain matters of fact."‡

* Maudsley, "Body and Mind," p. 61. † Lockes' Essay, book IV, chapter III.

‡ Maudsley.

FEIGNED INSANITY — CASE OF JOSEPH WALTZ.

[We present this as an important and interesting case in the jurisprudence of insanity, and also an instance of persistent feigning. The history of the case and the trial are so fully stated by Gov. Dix, that further elaboration would seem to be unnecessary.
—EDS.]

STATE OF NEW YORK:

EXECUTIVE CHAMBER,
ALBANY, May 4th, 1874. }

MEMOIR OF THE CASE OF JOSEPH WALTZ, THE MURDERER,
TO BE FILED WITH THE OTHER PAPERS RELATING TO HIS
CRIME, TRIAL AND EXECUTION.

Joseph Waltz, of Athens, Greene County, as was subsequently proved by his trial, killed, at his father's house in that town, Herman Holcher of Albany, an itinerant scissors-grinder, on the first day of May, 1873.

After the arrest and imprisonment of Waltz, when certain examinations had led to indubitable evidence of the crime, and when the facts disclosed had been communicated to him, and he was taken to the house in which the murder was committed, he made a full confession, giving a detailed account of the circumstances attending the homicide, and the steps he had taken to elude detection. He was subsequently taken over the farm, and he pointed out the different places where the body of the murdered man and his property had been concealed, and were then found, thus verifying the truth of his statements. He also confessed that he had plundered school-houses at different times, and the books were found where he had secreted them. His conduct

in the perpetration of these crimes, as described by himself, indicates deliberation, coolness, cunning, and moral depravity. That he was fully aware in killing the scissors-grinder of the atrocity of the act and of his accountability for it, is manifest from his own statement. His conduct until his arrest, sixteen days after the murder, was that of a man in full possession of all his faculties. He made bargains, transacted business, and kept careful accounts of his payments and receipts.

The trial commenced on the 28th of February, 1874, and terminated on the 14th of March, ensuing.

Six or eight weeks after his imprisonment, when he had shown some symptoms of insanity, real or feigned, a paper was prepared for the purpose of testing them, containing false indications of mental derangement, some of them of the most extravagant character, and was left at his cell; and he immediately began to manifest the same indications, persevering in them at intervals to the last. This paper was excluded at the trial, as it could not be proved that he had read it. Numerous circumstances justify the belief that his insanity was feigned. Among them were the facts stated by the presiding judge as follows in his account of the case now on file: "Waltz acted according to the symptoms indicated in that paper. On the first day of the trial he was furious in the court room. That night Dr. Mackey told him, (as Mackey reported to me,) that he was hurting his case, and from that time to Thursday noon of the second week, Waltz was quiet and peaceable. He assumed through the trial an air of quiet indifference. As he sat directly in front of me, so that whenever I raised my head I could see him square in the face and detecting frequently, as I thought, a most anxious look toward a witness or the jury, at noon of Thursday I requested Dr. Mackey to tell him that his behavior was almost

too good, and that it would be better for him to show some symptoms of insanity. This was done, and when Waltz came into the court that afternoon and the next day his acts of fury were repeated." On the trial four physicians who had the prisoner under observation for several months, at the instance of the District Attorney, were examined on the part of the prosecution. Three were unanimous in the opinion that his insanity was feigned. The fourth said in regard to his paroxysms of fury: "Taking everything into consideration I have made up my mind that these spells were feigned." He also said, "I have not seen enough of him to make me conclude that he is insane; I don't call him insane." Two were examined for the defence, and they were of opinion that he was not perfectly sane, though their testimony was less positive than that of the physicians who were examined for the prosecution.

The jury, after an able, impartial and elaborate charge by the presiding judge, found the prisoner guilty of murder in the first degree, and he was sentenced to be hanged on the first day of May, 1874, the anniversary of the day on which the crime was committed. In his charge to the jury, Judge Westbrook said that the burden of proving the prisoner sane devolved upon the prosecution, that the people must satisfy the jury beyond all reasonable doubt that the prisoner understood his act, and that he had reason, perception and understanding sufficient to know that the laws of God and the land said he should not do it. He was defended with signal ability. The jury were out less than an hour, and it is stated in the report of the trial that their verdict was agreed on in fifteen minutes after they had retired.

On the first day of April, Judge Westbrook, who presided at the trial, called on me at the Executive Chamber, and gave me a full history of the case. He did not

question the sanity of the prisoner, but he had previously suggested, by a letter written in behalf of himself and the judges who were on the bench with him at the trial, that a commission of experts should be appointed, as authorized by the statute, to examine the prisoner and decide the question of his sanity. I acceded to his suggestion, which had been previously made in other quarters; and after a careful examination of the judge's notes of the testimony, I requested Dr. John Ordronaux, the State Commissioner in Lunacy, and Dr. John P. Gray, Superintendent of the Utica Insane Asylum, to make a personal examination of the prisoner and a thorough investigation of his case as presented by the testimony, and to communicate the result to me. Their report is as follows:

To the Hon. John A. Dix, Governor of the State of New York:

SIR:—The undersigned, a commission appointed by you to inquire into the sanity of Joseph Waltz, now under sentence of death in the county jail at Catskill, in Greene county, respectfully report:

That they examined the said Waltz jointly, and separately, on the 15th day of April, inst., in a careful manner, and took statements from Drs. Phillips, Jewell, Mackey and Wetmore touching the substantive matters to which they had testified upon his trial; also from Deputy Sheriff Olmstead and the father of the prisoner. They have further read the testimony in the case, as furnished them by your Excellency from stenographer's notes, together with the notes of Judge Westbrook, the presiding judge, at the trial, and acting upon the information thus received they have arrived at the conclusion that the said Joseph Waltz is not now insane, and was not at the date of the homicide committed by him.

They further submit a record herewith of their personal examination of the prisoner, together with the

facts bearing upon his case as obtained from him, and their conclusions thereupon.

The prisoner, Joseph Waltz, is a young man twenty-four years of age, of medium size and physically well developed, who has always lived with his father upon a farm, having an interest in it. His father states that his health has always been good, and that nothing unusual has ever been noticed in his conduct; that he was a good worker, spending his time at home; a great reader and attentive to all business matters, being particularly well informed in the culture of grapes and similar small fruits, to which purpose the farm was mostly devoted. He is now in good health, even after a year's confinement.

We found him in a spacious cell, chained by his ankles, the floor mostly covered with pictorial papers—a few books, including a Catholic mission book and an English dictionary lying upon his bed; also a blank book in which he was writing when we entered. Upon the wall were drawings of geometrical symbols such as the square, the circle and triangle; as, also, a balloon, and passages of scripture and snatches of rhymes, partly original, partly quoted. The ceiling in one corner was dotted with lamp-black.

On accosting him, he stared at us, made grimaces, looked about the room, but gave no answers to questions, simply uttering a guttural sound; getting up from his bed, then getting on his knees, then laying down with his face to the wall. We were silent for some minutes. He then turned, and in a confused manner asked if we lived in Catskill? Upon interrogating him, we received the following as some of his answers, and which are illustrative of his replies for about an hour and a half, during which he frequently renewed the grimaces, and at one time reached under his bed,

brought out a piece of iron about eighteen inches long, suddenly rose to his feet, held it in his right hand, and stood in a menacing attitude: "*Don't know how old I am; don't know mother's name; don't know father's, only that it's Waltz; don't know what church father goes to, think it's Lunarian; feel queer some times; belong to the spirits of the moon; I am married to the queen of Lunarians; she came in one night last week and said I should be king of the Lunarians.*" Being asked what he meant by Lunarians, he replied it was about the moon, took up the dictionary and pointed out the word Lunary and said the word "Lunarian comes from that." "*I was tried in summer; wore an over-coat; tried in an immense crowd; thousands of people; not in the court-house; never knew of a court-house; never saw one; went through the door with supernatural strength; counsel? counsel? I had no counsel; no judge was there, but a man was on the throne, who talked too much.*" He then said to one of the commissioners, "*You are the governor,*" and to the other, "*You are a judge.*" He denied ever coming to Catskill, or doing any business. Said his mother bought his clothes for him. In reply to a question, he said, "*I killed a man once, oh, yes, he was a good man, he never swore, never got drunk; I never made a confession.*"

Being finally told that there was no necessity in his feigning before us, and so stupidly, he instantly replied, "*Feigning? Feigning what?*" Being further told that this assumption of entire ignorance of the simplest things and complete loss of memory, were inconsistent with his state of health, intelligent appearance, and the books and papers he had about him; as also with his being engaged in writing in them when we entered and the prompt use of the dictionary, he said, "*Are you strangers? I don't know whether I ought to talk to*

you?" And, on being asked whether he was acting under the advice of counsel, he said, "*Judge Osborn is my counsel; but I can tell you.*"

He went on partly in answer to questions, and partly voluntarily, to give an account of the homicide, and other acts. He first said, "*The trial was conducted in the most tedious manner possible,*" and "*my counsel sat there objecting.*" "*I wanted to bring the proceedings to the right place; I don't think I ever spoke to my counsel on the trial.*" Resuming he spoke of several witnesses at the trial; said his mother had not been examined there, but had at the coroner's inquest; spoke of Dr. Mackey as having pretended to be his friend, but "*proved a treacherous villain;*" said "*Dr. Phillips was his friend.*" In answer to questions, as to whether he knew that a Commission was coming to examine him, he said, "*My sister told me.*"

In describing the homicide he said he had known Holcher, that he had never thought of the deed till the evening, while reading, and after Holcher had gone to bed; it made him feel queer, sort of warm. "*I went in and looked at the man, and went back and prayed against it and read something in the Testament, but the evil spirit prompted me to it; I then went to the woodshed, got the hatchet and went into my own room, and then went to Holcher's and struck four blows; I think then I felt faint, for I found myself upon the floor; then I got up, rolled him up and carried him out to the barn.*" He then paused and afterward resumed as follows: "*I thought if I put him in the barn, I'll be too much frightened to get him out, and by superhuman strength I carried him to the fence and covered him with cobble stones; I went back and took the machine farther up the fence on the other side; if I could go up there I could show you on the ground better.*"

He went on to detail that in the morning, he told his father that Holcher had left in the night, taking a blanket, and had had nose bleed which made the blood; that his father went to Catskill to have Holcher arrested; that he had burned the machine that day, and that he had buried the body that night. Next day he wrote the letter put on the telegraph pole, and that night took it up with the things towards Coxsackie. He afterward secreted the books that he had taken from the school-house. Being asked why he did so, he replied, "*I was afraid they would make suspicion.*"

When asked how he felt then about it, he said he felt bad. On being asked if he had slept, he said, "*It took me two nights to do these things.*" When asked if he knew it was wrong, he said, "*Oh, yes; but I don't know the way I did it,*" and when asked why, replied, "*The spirit prompted me—the bad spirit—because bad spirits drag us down, good spirits carry us up.*" And, on being asked, do you mean a spirit there which you saw, replied, "*No, spirits have no bodies, they control us, they may appear as a flame.*"

Did you see a spirit of flame, he was asked, "No," was his reply. It was said you prayed two nights, how was that? "*Oh, yes; I prayed more nights than two, and I believe God has forgiven me.*" Being asked why he thought so, he answered, "*Father O'Driscoll said he would, and I believe I was.*"

Being questioned about entering school-houses, he said: "*I first went at night and looked in at the windows, and I saw a clock on the desk of the pedagogue, and it was twelve o'clock.*" What do you mean by a pedagogue? "*A school-master.*" Continuing he said, "*I went into the window, got the books, and left a candle on the floor; went to another school-house and got some books there, and coming back, saw the first one burning.*

Had the books in a bag?" When was this? "*A year, or a year and a half ago.*" Did you tell this? "*No, I didn't.*" Did you plough the lot after you buried Holcher? "*The lot was ploughed.*" Did you read the books you took? "*Yes, and used the dictionary.*"

On questioning him about his writings, he said that since he had been in jail, he had written yards of poetry, which people had promised to have published in the paper. That many came to look at him, and some said how well he looks, and others, how horrid he looks, and others said, he looks like a brute, and others, again, stood around the room and looked at him without speaking.

He then admitted that he had made a confession before. We showed him the annexed slip, and asked him if one similar to that had ever been handed him. He did not reply. Asked him if the doctor had not handed him that. He said, "*No, some one else.*" Afterward confessed that he had seen it. It is as follows:

"**SIGNS OF INSANITY.**—A vacant stare at some part of the room as though the person saw something; screaming aloud occasionally as though they saw something like an enemy, an angel, a demon or something terrible, accompanied by apparent fright. Skulking in a corner; furious and breaking every thing to pieces within reach; resisting every effort to quiet them; turning away the face as though not wishing to be seen; frothing at the mouth; tearing the clothes; biting at their clothes and even biting their own fingers. When lying down a disposition to lie on the left side, or throwing the right hand over the head."

Mr. Olmstead, the deputy-jailor, stated that after this slip had been passed into his cell, he exhibited the very symptoms described in the paper, and Dr. Mackey states

that on his telling the prisoner on the trial that he was overdoing his part in the exhibition of violence, he became quiet and self-possessed, and, on afterward remarking to him that he was erring in the opposite direction, he resumed his eccentric and violent demeanor. Mr. Olmstead further states, that the prisoner was quite natural and communicative before we went in to examine him.

We then proceeded to the farm and examined the stone structure alluded to on the trial in company with his father, who stated that his son had built it years before as a place to sit in and read. He also pointed out a wooden barn which he said his son had planned and built with his own hands.

We saw the prisoner again upon our return. He manifested none of the seeming stupidity which he had previously. Asked if we had seen his father and sister, and was moved to tears. Asked "*if we couldn't get him out.*" Said "*it was short to the first of May; wouldn't minded being hung at first, but it was so long, and he had suffered so much.*" He again shed tears. He then said, "*If you help me with the Governor, I will give you all I have. I have between four and five hundred dollars in money, and an interest in the farm, and father will add to it.*" This offer he repeated to us separately in our subsequent examination. Just as we left, he said, "*Now, if you can do any thing with the Governor, I will do what I have said,*" and added, "*Can I not write to the Governor?*"

We were informed by his father that up to the time of Joseph's arrest he noticed no change in him whatever, and that he had not the slightest suspicion of his guilt. He denied having said to Mrs. Holcher that he had not seen her husband this spring, (meaning 1873,) but said he told her he had not seen him this spring, for

fourteen days. Two days after this interview the prisoner was arrested. We were further informed, and it is in evidence, that for some six weeks after his incarceration Waltz was entirely natural in his demeanor, and only began to show peculiarities in conduct after having been informed that insanity was his sole hope of escape.

He appeared very much moved when told that we could hold out no hope of his escaping punishment. We spoke to him of the future and his accountability, and he fully comprehended all that was said upon this subject, and the nature and quality of his crime, which he deeply regretted, saying with apparent contrition and emphasis, weeping, "*Oh, I never, never could do such an act again.*" After spending about four hours in examining him, we left, fully satisfied that he had been feigning insanity, with imperfect knowledge of its symptoms, and led by the idea that it was the only avenue of escape from conviction and punishment. When asked whether he did not think the punishment was just, he replied, "*That to hang him would not bring Holcher back. That Holcher was in heaven because he was a good man.*"

CONCLUSION.

From the foregoing voluntary and repeated confessions of the prisoner; from the evidence adduced upon the trial; from the statements of his father, and from a personal examination of him under the light of past and present habitual demeanor, there is no escape from the conclusion that the prisoner, at the date of the homicide committed by him, possessed all the elements of legal and moral responsibility, for, he fully knew and comprehended the true nature and consequences of the act he was about to commit. He knew it to be both

wrong in itself and a wrong to his victim, since he successfully resisted its commission for a while, by prayer and deliberation upon its enormity, thus evincing, by this power to choose between two courses of conduct, that he was a free moral agent. Therefore we are of the opinion that the homicide was the act of a sane mind, knowing that the act it was about to commit was a crime; intending so to commit it, and, with full power of refraining from, or executing its wicked purpose, deliberately preferring to do the latter.

All of which is respectfully submitted,

JNO. ORDRONAUX,
JOHN P. GRAY.

ALBANY, April 18th, 1874.

All the requirements of the law having thus been complied with, and the prisoner having been unhesitatingly declared sane, after a personal examination by two experienced experts, whose conclusions seemed to me to be fully sustained by the testimony produced at the trial, I announced to the sheriff that I should not interfere with the execution of the sentence.

I do not doubt that the public judgment was in accord with this decision, and that there would have been a universal acquiescence in its justice, but for the subsequent unwarrantable interference of Dr. A. O. Kellogg, an Assistant Physician of the Hudson River State Hospital, in setting up his opinion against

- 1st. The verdict of the jury.
- 2d. The opinion of the expert commissioners, and
- 3d. The action of the Executive in conformity thereto.

It appears, by papers deposited in the Executive Department, that Dr. Kellogg, by request, visited the prisoner, in jail, on two different occasions before the trial, and came to the conclusion that he was insane, that the

doctor was not produced as a witness and submitted to an examination as to the ground on which his opinion had been formed, but that he gave publicity to it through the newspaper press after the examination by experts, and after the final decision of the Governor was communicated to him, even going so far as to say, "on the best authority," that there would be a new trial.

It further appears, First, that he addressed a letter to the Executive, which, through accident, did not reach its destination until after the execution of Waltz, recommending the very examination by disinterested experts, whose decision he afterwards sought to impeach, by the publication of an adverse opinion. Second, as late as the 24th of April, only seven days before the time appointed for the execution of the sentence, he wrote a letter in which he said, "I have, by urgent solicitation, induced one of the most able, honest and experienced experts in this country to visit Waltz to-morrow, and gave me his opinion;" adding, with notable confidence in himself, "whatever this opinion may be, it can not change my own."

The attempt at this juncture to set up an independent and self-constituted tribunal to create distrust towards the public authorities, and to found a precedent for interfering with the course of legal procedure, upon the basis of a disagreement of opinions, can have no justification. It is especially unjustifiable in one holding office under the State, the action of whose authorities he thus assumes to impeach.

The "able, honest and experienced expert," to whose opinion Dr. Kellogg attached so little value, unless it coincided with his own, was Dr. Brown, Superintendent of the Bloomingdale Asylum, who was followed in the examination of Waltz by Dr. Choate, formerly of the Insane Asylum at Taunton, Mass. After a single ex-

amination in his cell, apart from each other, they concurred in thinking the prisoner insane. A day or two after the examination of Waltz by Dr. Brown, the latter had an interview with Judge Westbrook in the city of New York, and notwithstanding the doctor's opinion, the judge said in a letter to a friend, that the interview confirmed him "in the belief that Waltz understood the act he committed." It is this clear understanding of the nature of the crime at the time it is committed, that constitutes in the eye of the law the test of responsibility. In another letter after the execution, he said : "I am fully convinced of his sanity, and could mention to you many little things which convinced me he was playing a part. The concluding scene in the drama is to me equally explicable. The sullenness and intense malice proved a comprehension of the situation, and the dogged desperation of a man who was conscious of his fate, which every person around him thought was just."

Dr. Choate's opinion is dated the day preceding Waltz's execution, immediately before which the latter made a murderous and fatal attack on his keeper, under circumstances showing deliberation, a perfect knowledge of his condition, a coolness of purpose and an anxiety to escape his impending fate, utterly irreconcilable with a state of mind, in which the sense of moral responsibility is wanting. After disabling the keeper, he took possession of his keys and his pistol, which he was prevented from using by the prompt discovery of his attempt to escape. All hope being at an end, he died with that stolid indifference often manifested by great criminals. It is a painful reflection whether this final act of desperation and brutal violence may not be due in some degree to the persistent attempts which were made to take the case out of the established course of the law, by encouraging in the criminal, hopes which were to be disappointed at the last moment.

The laws of the State are framed with a merciful consideration for persons accused of crime. No man can be convicted except upon the clearest evidence of his guilt, and a unanimous verdict of a jury. If, after conviction, there is any doubt as to his moral accountability, the law authorizes the Executive to appoint commissioners to examine him and determine the question. When all these acts have been performed under the highest official responsibility, there should be an end of controversy, or at least of opposition to the determination of the law. To allow the finality of a decision thus solemnly made to be impeached by unauthorized, ex parte or clandestine investigations, is to overthrow the orderly administration of justice, and to involve the adjudications of the law in endless confusion.

The duty of the Executive in cases of capital punishment is of the most painful character. There is no convict, however atrocious his crimes, who has not importunate advocates with the pardoning power to reprieve him, to commute his sentence, or remit his punishment; and the cases are already numerous in which murderers are maintained in State Institutions, warmed, clad and fed at the public expense, furnished with books and medical and spiritual attendance, with everything, in a word, which can contribute to their moral and physical comfort, exempt from all chastisement except the restraint of their personal freedom, while the widowed wives and orphaned children of their victims are fighting out the hard battle of life unaided, the objects as a general rule, of little else than a barren and profitless sympathy.

With these two phases of the administration of retributive justice constantly before him, however trying in some instances may be the position of the Executive, with whom the pardoning power is deposited, he ought

not to be expected, without the most overpowering reasons, to interpose for the purpose of setting aside the well-weighed determinations of juries and courts.

JOHN A. DIX.

ALBANY, N. Y., May 2, 1874.

His Excellency John A. Dix:

SIR:—We have this day examined the brain, and its membranes, in the case of Joseph Waltz, executed at Catskill, May 1, and find them sound.

JOHN P. GRAY,

Superintendent N. Y. State Lunatic Asylum.

JOHN SWINBURNE, M. D.

NEW YORK STATE LUNATIC ASYLUM, }
UTICA, May 12, 1874. }

To the Hon. John A. Dix, Governor:

SIR:—At the request of Dr. John P. Gray, Medical Superintendent of this Asylum, I have made a general and microscopic examination of the brain of Joseph Waltz, and find it entirely free from disease.

THEOD. DEECKE,

Special Pathologist. N. Y. State Lunatic Asylum.

The following is from the very able charge of Judge Westbrook to the jury, in which it will be seen he lays down the law as at present interpreted by our courts, relating to persons alleged to be insane at the time of committing a crime.

But what is insanity? what must be the mental condition of the party who is to be excused on account of that mental condition? How much intellect, understanding, judgment and comprehension must he have to make him amenable to the law. This, gentlemen, is a question for the court, and as the court lays down that law to you, you will be guided and governed by it in your deliberations.

Questions of fact belong to you; questions of law to the court. Trench not upon the prerogative of the court and the court will be careful to leave to you that which the law makes it your duty to decide. What, then, I repeat, must be the mental condition of the person who has done the act, otherwise unlawful, which will excuse him for the commission of such act?

The term "Insanity" is a somewhat vague one. There are different degrees of mental power in a healthy person. There are various degrees of capacity among persons whose intellect may be slightly impaired. In regard to the civil affairs of life, that act is a good and lawful one which is done by a person who understands the act. The law can make no difference between the talented and those who are not, in regard to the execution of a deed or a will, so long as the person of the lesser intellect has enough capacity to understand and comprehend the act which he does. And so in regard to crime. The person who comprehends crime in *all* its monstrosity is liable. The person whose intellect is less than that, so long as he has sufficient comprehension to know that the act is wrong and is forbidden, and will be punished by the law, is equally responsible; no more so and no less so. The law, gentlemen, does not recognize insanity as a defense, so long as the person understands and comprehends the act. That the person pretends he is impelled by an irresistible and overwhelming impulse to commit the act will not make a defense. It will not do for a person to say "I was tempted to crime and was overcome by temptation." If he knows the act is wrong and is forbidden, he must resist the temptation, and if he commits the act he does it at his peril. Neither will it do to excuse the commission of crime because a person believes in spirits. Belief in spirits may be evidence for a jury to found its judgment upon in regard to the understanding and comprehension by the party accused of the act and crime. But belief in spirits of itself—that the party sees or hears spirits—that spirits whisper to him and bid him to do this act—that of itself is no defense provided the judgment and reason which God gave to him and spared to him, declare to his consciousness that the act was wrong, and that the laws of God and man forbid it.

This, gentlemen, is no new doctrine; it is as old as the country from which we have borrowed the most of our learning and our law. I refer now to the law of England. And that you may see what the law of that country is upon that question, let me call your attention to some extracts from that law which I have carefully culled:

"To justify the acquittal of a person indicted for murder on the ground of insanity, the jury must be satisfied that he was incapable of judging between right and wrong; and that, at the time of committing the act, he did not consider that it was an offense against the laws of God and nature."

This opinion was given by Lord Lindhurst in the case of the King against Offord. Another Judge thus says:

"Where, upon a trial for murder the plea of insanity is set up, the question for the jury is, 'did the prisoner do the act under a delusion, believing it to be other than it was?' If he knew what he was doing, and that it was likely to cause death, and was contrary to the laws of God and man, and that the law directed that persons who did such acts should be punished, he is guilty of murder."

This was the opinion of Martin, J., in the case of the Queen against Townley. And again,

"The circumstance of a person having acted under an irresistible influence to the commission of homicide is no defense, if at the time he committed the act, he knew he was doing what was wrong."

That is the opinion of Bramhall in Queen against Haynel. The same doctrine has been enunciated in various States of this Union,

"In a trial for murder a charge 'that the true test of insanity is, whether the accused, at the time of the commission of the crime, was conscious that he was doing what he ought not to do,' is proper."

"The test of such insanity in criminal cases, as will excuse the commission of a crime, is whether the accused, at the commission thereof, was conscious that he was doing what he ought not to do."

That was held in the case of the People against Hebson, 17, California.

1 N. J., 196, the State against Spencer.

"It is not every kind or degree of insanity which exempts from punishment. If the accused understood the nature of the act, if he knew it was wrong and it deserved punishment, he is responsible."

This is the case of the U. S against McGue. 1. Curtis, Ct. Ct. Reps.

"If a man has capacity and reason sufficient to enable him to distinguish between right and wrong as to a *particular act*, for the commission of which he is on trial—if he has knowledge and consciousness of *the act* he is doing and that it is wrong and will deserve punishment, he is, in the eye of the law, of sound mind and memory, and therefore criminally responsible for the act."

And, gentlemen, the same doctrine has been enunciated in a recent case in the Court of Appeals of this State, which is our highest court, and whose decisions must be our guide in the determination of this one. The case is reported in 52 N. Y. (Flanagan vs. the People.) The prisoner was convicted in the General Sessions of New York city of the crime of murder in the second degree, he having been indicted for murder in the first degree for killing his wife. The counsel for the prisoner made these points:

"No man can commit a crime, although he has *understanding*, if he has no *will*. The right and wrong test as to the contemplated act is not favored. The power of *choosing* right from wrong is as essential to legal responsibility as the mere capacity of *distinguishing* right from wrong."

That is to say, the prisoner's counsel said he must have the power to *choose*; that is, to determine what he would or would not do; whether he should do the act or whether he should not do it, and this was just as important in determining whether he was insane or not as his power to *distinguish* between the right and the wrong of the act. In other words the counsel for the prisoner claimed that though the prisoner might have reason enough to tell him that the act was wrong—that the laws of the land and God forbid it—that if he had no will to resist the influence which bade him do the act, then he was crazy and insane, and not criminally responsible. It presents to a certain extent one of the very propositions which the counsel for the prisoner has raised here. It presents almost the identical question which is raised by the confession of the prisoner in the case. Now what did the Court say in this case? They refer in the first place to the case of Willis against the People. That was a case in which I was concerned and where the rule in this State was pretty thoroughly settled. The Court of Appeals through Andrews, J., says:

"That the test of responsibility for criminal acts, where unsoundness of mind is interposed as a defense, is the capacity of the defendant to distinguish between right and wrong, at the time of and with respect to the act, which is the subject of the inquiry."

Of course he must be able to intelligently distinguish between the right and the wrong; he must have a comprehension and knowledge that the act is forbidden; it must be present to his mind at the time he resolves to do it. But if that intelligence and comprehension be present—if there is a voice within him saying, "Do not this act," and he understands that if he does it it is wrong, and the law will punish him, then if he does it, he is responsible,

even though he may claim that some mysterious influence or spirit urges him on and destroys his power to resist. I further read :

" We are asked in this case to introduce a new element into the rule of criminal responsibility in cases of alleged insanity, and to hold that the power of choosing right from wrong is as essential to legal responsibility as the capacity of distinguishing between them ; and that the absence of the former is consistent with the presence of the latter.

" The argument proceeds upon the theory that there is a form of insanity in which the faculties are so disordered and deranged that a man, though he perceives the moral quality of his acts, is unable to control them, and is urged by some mysterious pressure to the commission of acts, the consequences of which he anticipates but can not avoid.

" Whatever medical or scientific authority there may be for this view, it has not been accepted by courts of law.

" The vagueness and uncertainty of the inquiry which would be opened, and the manifest danger of introducing the limitation claimed into the rule of responsibility, in cases of crime, may well cause courts to pause before assenting to it.

" Indulgence in evil passions weakens the restraining power of the will and conscience ; and the rule suggested would be the cover for the commission of crime and its justification. The doctrine that a criminal act may be excused upon the notion of an irresistible impulse to commit it, where the offender has the ability to discover his legal and moral duty in respect to it, has no place in the law. Rolfe, B., in Rogers vs. Allunt, where, on the trial of an indictment for poisoning, the defendant was alleged to have acted under some moral influence which he could not resist, said : ' Every crime was committed under an influence of *such a description* ; and the object of the law was to compel people to control these influences.' "

That, gentlemen, is the law of this case. It is the law which must govern you in your deliberations. You are not to ask yourselves the vague question whether the prisoner was or was not insane, without having any clear or definite comprehension of what insanity is, but you are to ask yourselves the question, did the prisoner understand this act when he raised that hatchet and smote Holcher those fatal blows ; did he understand that the laws of God and man forbade him, and did he know that those laws would hold him responsible for it when discovered and brought before a tribunal of justice ? If he *did*, he is guilty. No matter though he

says, and his counsel for him argue, that an irresistible, mysterious power urged him on to the commission. This is no defense. The law says it is the duty of the person to resist these influences, and to successfully resist them. The safety of society, the protection of life, require that we should hold persons accountable for crime who know that the act which they do is a criminal one.

In contemplating this case it impresses us as a forcible illustration of the indicia of simulated insanity as given by Dr. Ray in his sixteenth chapter. The harmony of Waltz' conduct with that of the test-signs there given, forms a most salient feature in this drama of dissimulation. We accordingly present it in a parallel analysis:

RAY.

WALTZ.

The grand fault committed by Waltz' conduct in the court impostors is, that, in their anx- room was so violent that Dr. iety to produce an imitation Mackey could only check him by which shall deceive, they overdo telling him that he was over- the character they assume. doing his part, when he imme- diately subsided.

A person simulating mania, When first questioned by the will frequently deny all knowl- Commissioners, Waltz could not edge of men or things with tell his father's or mother's name, whom he has been most familiar. or the church they attended; The very names, dates and trans- said he did not know what a actions with which he has been court house was and had never most lately and intimately con- seen one. Did not remember ever versant, he will, for the same coming to Catskill village, &c. reason, refuse to remember.

Well-marked, real mania, sel- Waltz had never been sickly, dom occurs suddenly, but is pre- nor had he altered in any trait of ceded, as has been elsewhere no- his habitual demeanor until after ticed, by a course of preliminary he was told that his only defense symptoms. In simulated insan- was insanity, when he showed ity, on the contrary, the invasion the first outbreak of violence is as sudden as is most frequently suddenly and without premoni- the occasion that leads to it. tion.

RAY.

WALTZ.

In real mania there is usually an extreme irritability of temper, which makes the person impatient of the least contradiction, and is constantly breaking out into furious gusts of passion.

The jailor's testimony was that Waltz was habitually quiet and good natured, and as he expressed it, "would hurt nobody." He showed no irritability whatever under examination. On the contrary, he was melted to tears.

In real mania, the patient will be days and even a week without sleep, while the simulator will be observed not to protract his sleeplessness to anything like the period which is commonly attained in the real disease.

Waltz habitually slept well. The only interruption to this habit, was on the two nights succeeding the murder of Holcher, when remorse was distressing his conscience. He admitted this himself.

In simulated madness there is also a certain hesitation and appearance of premeditation in the succession of ideas, however incoherent, very different from the abruptness and rapidity with which in real madness the train of thought is changed. This, of itself is sufficient in the majority of cases, to reveal the deception to the practiced observer of insanity.

Waltz from the first hesitated and deliberated upon his answers, apparently studying his part as he went along, and attempting in a clumsy way to escape being made to draw conclusions from his own premises, knowing as he did that they were false. Hence, he showed none of that natural logic which even an insane mind displays. In other words he was not consistent with himself.

The impostor generally evinces no settled diminution of his attachment to his family or friends.

Waltz to save his father who was first arrested, confessed the murder before there was the least evidence against him yet collected.

Generally, persons feigning mania, lack the bold, unflinching look of real maniacs. They never look the physician steadily in the face, nor allow him to fix their eye.

Waltz on the Commissioners first entering his cell, would not look at them, turning his face to the wall, and constantly when closely gazed at, would close his eyes and make wry faces.

In conclusion, and not to unduly extend this narrative we may say that in the other signs mentioned by Dr. Ray, Waltz presented almost every feature which an untrained simulator would be likely to assume in order to further his object. And so impossible is it to continually veil truth against the persistent efforts of nature to express herself, that, when Waltz was directly accused of feigning, his face for the first time showed a blush of disappointment and shame, as he exclaimed, "*feigning?*" *feigning what?*

It would seem after all, from what Dr. Ray and other authors quoted by him have said upon this subject, that it is really more difficult to feign insanity than it is for an expert to detect it. All nature and experience are on the side of the latter, all difficulty and obstruction in the way of the simulator.

CLINICAL CASES.—SYPHILITIC INSANITY.

DR. WILLIS E. FORD.

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The causation of insanity is a subject attracting so much attention at present, that everything operating as a sole cause, or even as a simple factor in the production of this disease is of the greatest interest, and is worthy of careful investigation.

Syphilitic insanity has received comparatively little attention, and the literature of the subject is scanty. Indeed it has been only within thirty years that syphilis has been believed capable of producing disorders of the brain and nervous system. Although since this time, great advances have been made in our knowledge of the manifestations of syphilis and in our power to control it, yet those who labor in the realm of psychology do not seem to have collected enough material to decide many questions which naturally arise. It is very difficult to ascertain how important a role syphilis may play in any given case of insanity, even though it may have previously existed, or be present at the time of the examination, for we can not say that every case of this kind is due to one specific source. There are, however, cases occurring from time to time, whose symptoms are so striking and conclusive that we can not doubt their specific origin, and post-mortems have verified the diagnosis. It is not our purpose here, however, to discuss the subject at length, but to present a few illustrative cases.

CASE 1. A man, aged 41, widower, was admitted to the Asylum in January, 1874. Patient had convulsions and infantile paralysis, was sickly and feeble up

to eleven years of age, when all these troubles ceased, and he grew up, a vigorous, healthy man. In June, 1873, he contracted syphilis, though he did not appreciate the fact at the time, and consequently received no treatment. In October following, a secondary syphilitic eruption, with alopecia came on. At the same time his friends noticed a marked change in his manner; from his natural buoyancy and exuberance of spirits, he became melancholic, worrying about his condition, watching his own symptoms, while every strange sensation was to him the sure fore-runner of some terrible calamity. He gradually lost interest in his business, and brooded continually over his troubles. Later he accused his associate of conspiring against him, and was often tempted to kill him. Once he actually took a maul into the office to use for this purpose, so great was the strength of his delusion. Thoughts of suicide subsequently came over him, though he strove to banish them. The night before admission to the Asylum, he broke a piece from the glass tumbler in his room, intending with it, to open a vein in his arm, and to bleed to death.

He came willingly and told his own story, said he had disgraced himself and friends by his conduct, and that the officers were now after him, to bring him to punishment. He had slept but little for two weeks past, and complained of a feeling of fullness in his head, with a slight frontal pain. He was restless and wept while in the office, and wrung his hands. There was an ulcerating surface in the roof of his mouth, a mucous patch which was evidently healing. His general physical condition was fair, though he was somewhat anaemic; and he was at once put upon bichloride of mercury. After his admission he was restless and disturbed, ran about the ward in a confused manner and

without apparent cause, and afterwards said he did not know where he was at the time, or what he had done. He improved rapidly under treatment, both in physical appearance and mental condition. In two weeks the mucous patches had entirely disappeared; he became comparatively cheerful, and began to mingle with the others, to read papers, and dwelt less upon himself. He gradually dropped his delusions, recognized his former condition, and grew hopeful and cheerful. In March, though decidedly better in physical and mental condition, he still had some disturbance of circulation. He occasionally became dizzy, had flushing of the face, and unevenness of pupils, with a sensation of pressure about the ears. The mercury was now discontinued, and iodide of potassium was given with ergotin. From this time he passed rapidly to complete recovery. He returned home in April, having gained about thirty pounds in flesh during his stay.

In this case, the insanity came on before the disappearance of secondary symptoms, which is quite an exception to the general rule. Its purely specific origin is strongly indicated by the rapid and complete recovery under specific treatment alone. In cases like this, Virchow says, the lesion which manifested itself in insanity is removed by treatment, leaving the brain in a normal condition. Ricord states the same thing, and relates a case of syphilitic disease resulting in partial hemiplegia, and mania lasting a month, complete recovery taking place under the use of iodide of potassium. Death occurred soon after from cholera; on post-mortem, no trace of brain lesion could be found. He did not accept the theory that the syphilitic virus in circulation, prevented the proper stimulation to the nerve-cells, or that the blood poison acted directly to produce this profound

mental disturbance. He states his belief that the product of inflammation was removed by treatment.

CASE 2. A man, aged 25, contracted syphilis in the fall of 1871, constitutional symptoms soon followed, and he placed himself under treatment. He had a remission of symptoms and was comfortable until November, 1873. He had then omitted his medicine for a long time, and a tertiary eruption appeared, accompanied with severe neuralgic pains about the head and shoulders. On several occasions, about this time, he gave evidence of mental disturbance, was talkative and incoherent. This condition lasted but a single day and disappeared with a headache. In December he spoke of having at times strange feelings in his head, when he was prompted to kill some one, some times his best friends. At one time he followed his employer into a store with a large knife in his hand, and said he was going to kill him. He was prevented from doing this, but afterward seized a club and attacked his brother, threatening to take his life. During the intermission of excitement he seemed to bear no malice to those whom he afterward used violently.

When brought to the Asylum he expressed no fixed delusion, and when asked to explain his conduct towards his friends, said, "I must have been crazy." He was put on iodide of potassium in full doses. He was quiet and orderly, but complained of severe paroxysmal pains, extending from the first cervical vertebra, over the top of his head and also over his temples. During these pains he was flushed in the face, often dizzy, and usually had some disturbance of vision. The administration of ergotin in two grain doses seemed to correct this condition, and these symptoms gradually disappeared. In five months he recovered and went home.

CASE 3. Man, aged 30; single, was brought to the Asylum in April, 1874. In February, 1873, he contracted a small sore on the glans, which left, when it had healed, a white spot on the mucous membrane, with a lump like a split pea beneath; following this came headaches, wandering muscular pains, loss of appetite, and feelings of lassitude, and lastly a secondary syphilitic eruption. Then mucous patches appeared in the mouth and about the anus, while the headaches became more frequent and severe. Positive symptoms of insanity were developed in November, 1873, and were in the main those of melancholia. In the following February, he began to have hallucinations of hearing; declared that voices were talking to him, calling him bad names. These he attributed to those around him and threatened violence if they were not stopped. He also complained of a sense of fullness and pressure about the ears.

At about this time, while seated at table, he fell in a convulsion, ground his teeth and frothed at the mouth. In the course of a few days two other epileptiform convulsions followed, each lasting half an hour and being followed by the usual lethargic state.

He continued gloomy, depressed and suspicious till March 17th, "St. Patrick's day," when he became frenzied, said the masons were after him, tried to escape, and finally seized a razor and drew it across his throat, producing a frightful wound and exposing the trachea. He then begged to be brought to the Asylum where he could not injure himself or others.

On admission he was thin in flesh and anaemic, the wound of throat had nearly healed. He talked coherently, said he had "raving spells" once in a while, and was afraid he might do some harm if not restrained. He was put on tonics with iodide of potassium. For two weeks he was quiet and gentlemanly, then he be-

came disturbed and threatening, asserted that fellow patients were heaping all kinds of abuse upon him, and mentioned epithets that had been applied to him. This paroxysm lasted one day, and has been followed by others at irregular intervals of about three weeks. Lately the administration of large doses of Tr. Belladonnæ has seemed to lessen the severity of these paroxysms. Specific treatment is still continued, though the prospects of ultimate recovery are lessened by the fact that the case was of so long duration before treatment was begun, and also by the gravity of the cerebral symptoms from the beginning.

This illustrates the fact pointed out by Dr. Broadbent, that epileptiform seizures may be the direct result of syphilitic infection. It also illustrates one form of the affections of the nerves of special sense, so common in syphilitic insanity.

CASE 4. Without giving a complete history, we may here allude to another case characterized by convulsions. In 1873 there was brought to the Asylum a man aged 29, presenting many of the symptoms of general paresis. He had the most exalted delusions, with some disturbance of speech, and the characteristic complacency of this terrible disease. He had been thought rather extravagant for some time, but was not considered insane until shortly before admission. He then suddenly decided to take a vacation; packed hastily and went to a fashionable summer resort. When he arrived at the hotel his friends were greatly shocked to see him in a state of apparent intoxication. While at table he fell in a fit and was carried to his room; where another convulsion soon followed, described as being epileptiform. He became incoherent and at times noisy; expressed the most extravagant delusions and being unmanageable, was brought to the Asylum. In four or five months he be-

came more comfortable, dropped his delusions, and improved in general appearance. He denied having syphilis at first, but when pressed, confessed he had at one time been treated for it, and cicatrices confirmed the statement. In three months, although on specific treatment, he had another convulsion, followed by various hallucinations of sight and smell, and died in a week of apoplexy.

CASE 5. Another case still under treatment possesses one point of special interest. A man aged 42, married, came under observation in November, 1873, and presented many of the symptoms of general paresis in its earliest stage; no direct history of syphilis could be obtained, though he had complained of nocturnal osteoscopic pains. A physical examination, however, revealed old nodes of the tibia, as well as copper colored scars. There was also present ptosis of the left eye, with dilatation of the pupil and inability to move the ball outward, although he moved it freely in every other direction. As a result of this condition he complained of seeing things double, that he always saw two objects when he looked with both eyes. To correct this he had learned to exclude the light entirely from this eye. The inability to move the eye outward, together with the fact that the two images seen, were always vertically placed with respect to each other, receding as the patient looked far to the right, and entirely disappearing when the outer half of the field of vision was shut off, showed there was paralysis of the sixth nerve together with that of the third.

These two are the cranial nerves most frequently affected by syphilis. This combination of symptoms is so rarely seen as the result of any other form of disease that it has been said to be diagnostic of syphilitic brain disease. Dr. Broadbent says the lesion is oftenest found

in the inter-peduncular space, sometimes, however, at the cranial exit of the nerves, and in either case is almost always unilateral. The frequency of hallucinations of sight and hearing in this form of insanity can not be wondered at, when we remember that the great tendency of syphilis is to localization of lesion, rarely ever an entire organ being affected. Again, there may be periostial inflammation at the cranial exit of the nerves of special sense, causing pressure, or there may be an effusion of fibro-plastic material into the nerve sheath, disturbing or actually abolishing its function.

Under specific treatment the last patient has become more comfortable, and less excitable, though he is feeble in mind. He can not yet raise the eyelid without the aid of the frontalis muscle, and double vision continues.

CODE OF LAWS RELATING TO THE INSANE
IN THE STATE OF NEW YORK, PASSED
MAY, 1874.

Until the present time the laws of this State relating to the insane had never been codified, and were scattered through the volumes of our legislative enactments from the very origin of our government. The State Commissioner in Lunacy, Dr. John Ordronaux, in a Report to the Legislature, having called attention to the necessity of revising and codifying these laws, (Senate Doc. No. 86, 1874,) on the 24th of February, a resolution of the Senate, directed the Attorney-General and State Commissioner in Lunacy, "to report to the Legislature a codification of the laws relating to the insane, with such suggestions for their amendment as to

them may seem proper." In obedience to this resolution, an act was reported by them on March 31st, 1874, (Senate Bill, 264,) which, as subsequently amended, constitutes the present Code, known as Chapter 446, Laws of 1874.)

It would appear from the Report of the Commissioners, that the history of special legislation for the insane, is of comparatively recent date. We quote from their Report :

While it is true that courts have, from time immemorial, been called upon to protect the estates of insane persons from waste at their own hands, or to authorize restrictions upon their liberty, whenever that liberty was dangerous to their own safety or that of others, no allusion to the insane, as such, occurs in the history of our State legislation previous to 1787, when at section 5, chapter 47 of the laws of that year, it is recited that wills made by idiots or persons of insane memory shall not be effectual in law. 1 Greenl. 387.

The first distinct act providing for the care and custody of lunatics as a class, is that embraced in chapter 12, Laws of 1788, entitled "An act concerning idiots, lunatics and infant trustees," and which gave to the Chancellor the same original powers over this class of persons as belong to the Lord Chancellor of England. 2 Greenl. 53-4.

The true nature of insanity, as a diseased condition, was, however, not yet understood, and its victims were still looked upon as prodigals or madmen, laboring under some form of immoral possession; for, in Chapter 41, Laws of 1788, entitled "An act for apprehending and punishing disorderly persons," it is provided in section six, that any two justices may order a lunatic or mad person to be confined, and, if necessary, to be chained. This is the first act which treats of the commitment or confinement of lunatics by name, and it also permits any friend or relative to take him under his own care. 1 Radv. 126.

Chapter 30, Laws of 1801, substantially re-enacts chapter 12, Laws of 1788, omitting only the provision relating to infant trustees.

Chapter 80, Laws of 1809, gives, among other things, the power to overseers of the poor to contract with the governors of the New York Hospital, for the care and maintenance of lunatics.

Chapter 32, Laws of 1817, empowers lunatics or their committees to convey lands, assign mortgages, etc.

Chapter 294, Laws of 1827, directs the place where, and the manner in which, lunatics are to be confined.

Chapter 218, Laws of 1838, relates to the safe-keeping of lunatics.

Chapter 135, Laws of 1842, is the act organizing the first State Lunatic Asylum at Utica. It embraces all the law up to that time regulating the commitment and maintenance of lunatics, and its provisions still form the body of our laws upon these subjects. Subsequent State Asylums have, whenever practicable, engrafted the provisions of the act of 1842 upon their own.

Chapter 112, Laws of 1845, relates to the powers of receivers of lunatics and habitual drunkards.

Chapter 446, Laws of 1851, amends chapter 135, Laws of 1842, and grants certain discretionary powers to County Judges.

Chapter 502, Laws of 1851, establishes an Asylum for Idiots.

Chapter 130, Laws of 1858, organizes a State Lunatic Asylum for Insane Convicts.

Chapter 139, Laws of 1863, amends the foregoing act.

Chapter 417, Laws of 1864, provides for sales of estates of lunatics.

Chapter 418, Laws of 1864, is an act to inquire into the condition of the insane poor-houses, asylums, etc., and the result of its operation was the organization of the Willard Asylum in the year following.

Chapter 342, Laws of 1865, is an act to organize a State Asylum for the chronic insane, to be known as the Willard Asylum.

Chapter 93, Laws of 1867, is an act to organize the Hudson River State Hospital, assigning to its care the insane of the twenty-two eastern counties.

Chapter 895, Laws of 1869, provides for the care of insane criminals, re-enacting parts of chapter 135, Laws of 1842.

Chapter 37, Laws of 1870, amends chapter 417, Laws of 1864, and applies its provisions to idiots and other persons of unsound mind.

Chapter 378, Laws of 1870, organizes the Buffalo State Asylum for the Insane.

Chapter 474, Laws of 1870, organizes a State Homœopathic Asylum for the Insane at Middletown.

Chapter 666, Laws of 1871, authorizes judicial inquiry as to sanity of persons under indictment for, or under sentence of death.

Chapter 571, Laws of 1873, requires licenses to keep private lunatic asylums, to be obtained from the State Board of Charities, and also created the office of State Commissioner in Lunacy.

Such is the chronological history of legislation for the insane in our State since the earliest days of its civil organization. Minor acts relating to appropriations for asylums, or appointing commissions to select their sites, or authorizing them to adopt certain provisions of established acts, have been omitted as not bearing directly upon the purposes of this synopsis.

After recommending more definiteness in the method of committing the insane, they refer to the demand made by public sentiment as well as by good policy, for a grade of medical certificates which shall testify to the professional competency, as well as reputable character of those making them. The following are their words:

We are of opinion, therefore, that no physician should be allowed to certify to the insanity of any person, without being or having been in the actual practice of his profession for three years, and being of reputable character therein. Every physician granting a certificate should, without exception, be a permanent resident of the State, and for further security against imposition, should have personally examined the patient. All certificates should be made under oath, and by two physicians, and a certified copy thereof should in all cases accompany the papers of admission, and be deposited with the chief officer in charge of the asylum.

They also recommend withdrawing from Justices of the Peace, the power of committing lunatics, it being repeatedly shown that the power was liable to great abuse, while every case to which it could be applied, could just as well be reached by Judges of Courts of Record or Superintendents of the Poor.

The expediency of trials by jury in determining questions of ordinary lunacy, also underwent a very searching analysis at the hands of the Commissioners, and their remarks upon this subject are such a pertinent answer to the generally erroneous impressions

touching this method of procedure as the one certain protection of the personal liberty of the citizen, that we re-produce them in full.

In this connection also, we are of opinion that the trial by jury in determining a question of ordinary lunacy is often an unnecessary and costly procedure, entailing expense without affording any additional guarantee against the possibility of improper confinement. On the other hand, men do not become superhumanly endowed with wisdom from the simple accident of sitting on a jury, and cases of a well-authenticated character are on record, where such a body have, by verdict, declared a person to be legally sane, who was notoriously not so, and *vice versa*. The report of the special committee appointed by Governor Hoffman in 1872, to inspect our Lunatic Asylums, consisting of Attorney-general Barlow, Dr. Hun, and President Anderson, of the Rochester University, and made to the last legislature, shows that there has been no cases of illegal confinement in any asylum, and there need be no apprehension in the public mind on this account. Recent inspections of the various asylums, by the State Commissioner in Lunacy, corroborates this opinion.

Reverting, therefore, to the question of jury trials on inquests of lunacy, it may be said that insanity being a scientific problem founded upon physical facts, the detection of its presence must always depend upon the application of those principles within whose province it can only be accurately considered. It is never a common fact to be interpreted in a common way, hence, like a problem in chemistry or astronomy, it is alone interpretable by those who have made it a special study. Non-professional men are, therefore, wanting in the very rudiments of that knowledge, without which they can neither weigh, gauge nor judge of the value of symptoms upon which an expert formulates his opinion. They can only appreciate glaring cases of a self-evident character, while those in which the decision is difficult are as much above their reach as are any other problems in scientific fields of which they are wholly ignorant; and admitting this ignorance to be present of necessity, we fail to see what possible advantage, either in law or equity, is to be derived from multiplying it by twelve.

Adverting to this subject, the Superintendent of the State Lunatic Asylum at Utica, in his annual report to the Legislature, for 1872, uses the following words:

"Of those discharged, fourteen were not insane when admitted. Three of these were cases of feigned insanity to escape punishment for crime, and the rest were drunkards, whose vagaries and violence were mistaken for insanity. All these were committed under public authority, and on certificates of insanity or trial by jury. On the other hand, no single instance of error in diagnosis occurred, either in public or private cases, where the family physician has made the examination and recommended the case to be sent to the Asylum. As far as the facts go, they tend to show that there is greater security in trusting to the family physician, who is familiar with those who employ him, and feels a sense of the responsibility of sending his patient to an asylum, than in transferring this duty to persons who have only a pecuniary interest in examination of patients under application for orders of lunacy for commitment to asylum.

"As to a jury in such cases, there could hardly be a greater farce than that of applying to twelve men, utterly unfamiliar with the subject, to enter final judgment upon a question of science, without even the benefit of a charge from a court." Vide Report, pp. 20, 21.

Delay in removing patients to an asylum after an order of commitment has been issued, is another point to which attention was called. Of the great curative importance of early removal we need not speak. Nothing is more constantly reiterated by Superintendents in their reports than this.

One of the most important of the amendments suggested by the Commissioners, relates to the disposition of the insane when accused of crime, and the treatment of persons acquitted of crime on the ground of insanity existing at the time of its commission. Until the adoption of the present code such cases had been the *opprobria* of our jurisprudence, and the scenes of professional antagonism to which they had served to give rise before courts, had brought a serious eclipse upon the general repute of expert testimony. In order to obviate the tendency of presenting *mixed defences* in criminal trials, and thus prolonging their duration and expense,

the Commissioners cut the Gordian knot by recommending that in every case where the sole defense was insanity, it should be pleaded upon arraignment, and at no other stage of the trial; and, in all cases of acquittal where the defendant having other elements of defense avails himself of them, and insanity becomes an *inference* in the minds of the jury so that they acquit him upon that ground, that then they shall find a special verdict to that effect, and the defendant shall be sent to some State Asylum, there to remain until it is deemed safe, legal, and right to discharge him by order of a court. No period of time being fixed for this, the sentence is thereby purged of all appearance of penalty, and the defendant placed under circumstances most favorable to his recovery and the protection of society. The timely observations made by the Commissioners upon these points are worthy of perusal as affording reasons for a similar application of these principles to the legislation of other States. They are as follows.

PLEAS OF INSANITY IN ANSWER TO INDICTMENTS.

In all criminal trials, where the indictment is traversed by the plea of insanity existing at the date of the offense, it has seemed to us that the length and cost of the proceedings might be greatly abridged by compelling the defendant to plead this fact upon his arraignment. Insanity being a physical condition to be established by the evidence of experts, no disadvantage can accrue to the defendant from requiring him to establish it at this stage of the trial rather than at another. Besides which, it forms almost a departure in pleading, to begin the defense by showing provocation and heat of blood, and then suddenly importing insanity into the transaction by way of expunging its culpability. If the defendant can prove insanity, that is enough. But neither provocation nor heat of blood are direct causes in the production of insanity, and they should not in consequence be pleaded as the indubitable agent which has converted a previously sane, into a completely insane and irresponsible person. Diseases of condition are never devel-

oped suddenly. They do not leap full-blown into existence. Nature everywhere works by systematic laws, and there is no more exception to their operation in the case of insanity than in that of any other mental or moral phenomena.

We are of opinion therefore, that it would further the ends of justice and economy to have the plea of insanity presented at the very outlet of the trial by the defendant, and empower the court to appoint a commission to try this issue forthwith. If the court shall find that he was insane as pleaded, the trial is at an end, and he is to be disposed of as set forth hereinafter. If the court find him to have been sane, then he is to be tried upon the merits of the case, excluding all question of insanity.

DISPOSITION OF PERSONS ACQUITTED ON THE GROUND OF INSANITY.

The treatment of persons acquitted of crime on the ground of insanity has given rise to great diversity of opinion. Much, if not all of this difference has arisen from overlooking the fact that insanity is not an absolute, but a relative condition, without definite or circumscribed limits, and whose center and circumference, like the shadow of an eclipse, are both movable over the plane of mental and moral conduct. Insanity does not necessarily destroy all a man's intelligence, nor all his power of self-control. The insane, as a class, represent all the tendencies of all common humanity. They plan, meditate and execute, and practice the same vices with the same kind of gratification to themselves, as do other men, for insanity, of itself, introduces nothing new. And if men are to be held accountable according to the degree of intelligence and power of control over themselves which they possess, it would not be difficult to find many insane persons who would come within the category of legally accountable beings, and science is every day making it painfully apparent to all that the judicial significance of insanity, when set opposite to crime, must henceforth be differentiated with more regard to degrees and personal conditions. There is no foundation in reason or experience for assuming insanity from either the inexplicableness of any one act, or the loss of self-control implied in that same act. Nor, on the other hand, is perfect restoration to reason to be inferred from any single sign or acts performed rationally for a short time. Exactly when a man begins to be insane, or exactly when he ceases to be so, are points of difficult and sometimes impossible determination. Every human being, in relation to mental or physical constitution, is to be judged from his own

standpoint. Health being the natural condition of men, no presumption of insanity necessarily arises from the peculiar character of any act. Hence the reason why the law casts the burden of proof upon him who alleges the existence of insanity.

But when this latter is once more shown to have established itself in the constitution of an individual, and to have overpowered his self-control to such a degree that he has committed a crime without the accompaniment of a felonious intent, then, although he can not legally be punished, it is plain that the safety of society, as well as his own good, require that he should be placed under observation, and necessary restraint, and protected against all excitements to a fresh crime, until such time as he can show, by as good evidence as that which proved him to be insane, that he has ceased to be so and can safely be intrusted with his own liberty. This is simply shifting the burden of proof upon one, who, having established the existence of an exceptional condition, is under obligation to prove, in the same way, the return of that natural state from which it was a departure. And since neither the beginnings nor the endings of insanity can legally be matters of presumption, we are of opinion that whenever a person has been acquitted of a crime on the ground of insanity, although he may be sane enough to be tried, the court should be empowered to order his removal, for observation to some State Lunatic Asylum, there to be detained until the proper authority determines it to be safe to discharge him. There is no element of vindictiveness or punishment in such a course. The law simply applies its own time-honored canons here, and accepting the proofs of insanity, demands equal proofs in rebuttal of its presumed continuance. It affixes no stigma, no imprisonment upon him, it takes his proofs as conclusive, assumes him to be insane and subject to loss of self-control, and proceeds to treat him precisely as humanity to him and safety to society alike demand.

As a corollary to this we would offer the provision hereinafter recited, as a simple and effective method for discharging any party committed as aforesaid, whenever satisfactory evidence of his restoration to sanity shall have been adduced, and it is shown to be safe to do so.

These suggestions were embodied in the revision of our laws, and now form part of the present code, and under which no patient can be confined in any Asylum, public or private, any Home or Retreat, except under a

sworn certificate of two physicians, after a personal examination made within ten days of the period of commitment. The qualifications of these examiners are, reputable character, graduation at some incorporate Medical College, permanent residence in the State, and three years of actual professional practice. All these facts must be sworn to by the physician. In order to constitute him an Examiner in Lunacy, these qualifications must have been certified to by a Judge of a Court of Record.

Another important provision relates to the better care of the estates of the insane and imbecile. Heretofore, committees or guardians were only required to report, when called upon by a court, the actual condition of the estate and of its rents and profits, the effect of which was that such estates were too often allowed to be wasted, or fraudulently used. Now guardians are required to file a semi-annual report, under oath, of the disposition made of the income of such estate.

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CONNECTICUT. *Eighth Annual Report of the General Hospital for the Insane:* 1874. Dr. A. MARVIN SHEW.

There were in the Asylum, at date of last report, 271 patients. Admitted since, 253. Total, 524. Discharged recovered, 37. Improved, 29. Stationary, 28. Died, 35. Total, 129. Remaining under treatment, 395.

In January, 1874, the Hospital was completed as originally planned, and for the first time in its history has been able to receive promptly all who applied for

admission. It now furnishes accommodations for 450 patients. It is gratifying to record the fact that in one State the supply has been made equal to the demand, and that in all cases of insanity, treatment can be secured early in the attack, and especially so to make this record in regard to Connecticut, whose first public Asylum for the Insane numbers less than a decade in years.

The financial affairs are in a flourishing condition, All purchases are made for cash, and there remains an unexpended balance of nearly \$5,000. No appropriation is asked for the coming year.

Dr. Shew has made a special table, giving statistics regarding the number of men patients who were in a condition to enjoy entire freedom of the premises, or with slight supervision. The per centage has been constantly increasing, varying from 44, in 1869, to 55.7, in 1872. Considerable attention has been paid to furnishing entertainment for the patients. Lectures, readings, concerts, tableaux and dramatic representations have been given during the year.

NEW YORK. *Thirty-first Annual Report of the New York State Lunatic Asylum:* 1873. Dr. JOHN P. GRAY.

There were in the Asylum, at date of last report, 535 patients. Admitted since, 410. Total, 945. Discharged recovered, 122. Improved, 42. Unimproved, 141. Not insane, 11. Died, 49. Total, 365. Remaining under treatment, 580.

The following review of the Report is quoted from the *Albany Argus*, of April 8, 1874:

The report of the Managers to the Legislature, embodies the reports of the Treasurer and Superintendent. The Asylum at Utica is the oldest, and for many years was the only Institution in this State for the cure of the insane. It has been peculiarly fortunate

in the choice of officers. Dr. Brigham, the first Superintendent, did more than any other American alienist, then living, to divest the subject of insanity of the mystery and ignorance which enshrouded it, and to give it its true place and significance, as a disease of the brain. His successors, and notably Dr. Gray, the present Superintendent, have continued to labor in the same direction, and have not only sustained, but added greatly to the reputation of the Institution. It has been a training school for the preparation of physicians for the responsible duties devolving upon the chief officer of an asylum for the insane, and we ascertain from the report that ten of the subordinate officers have been called to assume the charge of other Institutions. By successive additions and by the ready adoption of such improvements as experience has shown to be desirable, the Asylum has kept pace with the times, and now, though thirty-one years have elapsed since its erection, it is still in the front rank of Institutions in the country, in affording accommodations for the cure and treatment of the insane. Its financial affairs as exhibited in the report of the Treasurer, are in a sound condition.

Those discharged as not insane were cases of intemperance, in a number of whom their riotous and violent conduct was mistaken for insanity; all of these were committed by the authorities as insane. A large number of those unimproved were returned to their friends, and the remainder were sent to the Willard Asylum, and the County Asylums whose accommodations for their care were approved by the State Board of Charities. The whole number admitted to the Asylum since its opening in 1843, has been 11,031, of which 10,451 have been discharged. Of these 4,157 were recovered, 1,679 were improved, 3,076 were unimproved, 1,385 died, and 154 were not insane.

The report of the Superintendent is one of interest, as well to laymen as to physicians. The Doctor speaks of the necessity of early treatment, and by an analysis of the cases admitted, shows the great neglect of people to place their friends under care, when the disease is in its earlier stages, and therefore more amenable to remedial measures. It is a sad commentary, and exhibits in a strong light the causes productive of chronic insanity, from which this State and the country at large is now suffering. "There are now in the State about 6,800 insane, of whom 3,400 are in State and City Asylums, about 1,200 in the poor houses and the remainder in private institutions and in the homes of their families."

The subject of causation and its dependence upon morbid physical conditions is clearly stated. We quote:

In many, the more remote causes continue as exciting or depressing factors acting on the brain, and must be arrested or removed by suitable remedies, as an antecedent to mental restoration, the morbid state of the brain then often subsiding. This is particularly the case where active phthisis, uterine diseases and disordered menstruation are the efficient causation. Here mania or melancholia may arise from disturbance of the circulation within the cranium, and from ill-nourished nervous centers and defective assimilation. In many, the conditions of ill-health have long preceded the insanity, and gradually lowered the tone of the entire organism, the brain and spinal cord included. These are feeble, broken down people, and some slight final cause, as a severe cold on the lungs, overwork and anxiety in the care of the sick, loss of sleep, or grief and loss of sleep, domestic troubles or financial embarrassments, causing undue activity of the brain, nervous exhaustion follows, the action of the heart is disturbed, nutrition interfered with, and we have insanity as the final catastrophe. At this point an appreciation of their condition, absolute rest and quiet, and forced nutrition, (abundant good nutritious food taken as a matter of duty when there is no appetite,) and suitable sedatives would, undoubtedly, in many cases avert further trouble. But too often all these are neglected, and diversion, by constantly occupying the attention, journeys, and other exhaustive circumstances, are substituted instead. There is often present in cases of long-standing nervous prostration and defective or feeble innervation, a scrofulous or tuberculous diathesis, which under the general constitutional depression, aggravated by some slight cause, awakens into activity, and we find the lungs giving way under a gradual process of degeneration. In such cases the general appearance indicates tuberculous disease, but examination does not reveal the usual physical signs, and there is little or no cough, no expectoration or pain.

"The following formulæ we have used, for some years, with benefit in such cases as well as in other cases of prostration when there is not even a tuberculous threatening:*

R		
Olei Morrhuæ.....	ʒ viii	
Vit. Ovi.....	No ij	
Acid Phos. Dil.....	ʒ ij	
Spts. Frumenti. vel. { q. s. ut ft.....		Oj
Vini Xericī		

* We insert the prescriptions and accompanying remarks, which were not given in the article from the *Argus*.—EDS.

Or:

R

Olei Morrhuæ.....	$\frac{5}{3}$	viii
Vit. Ovi.....	$\frac{5}{3}$	ij
Syr. Lacto-phos. Calcis.....	$\frac{5}{3}$	ij
Tr Cinchonæ vel } q. s. ut ft.....		Oj
Tr Gentianæ		

Make an emulsion. Dose, a tablespoonful after each meal.

In cases where such a remedy is indicated by the condition of the lungs, five drops of dilute Hydrocyanic Acid may be given with each dose. Where there is torpor of the bowels, add to either emulsion two drachms of the tincture of Nux Vomica, and in cases of constitutional syphilis, from five to twenty grains of Iodide of Potassium may be given with each dose.

If the Cod liver Oil can not well be borne, we employ this prescription:

R

Glycerinæ	$\frac{5}{3}$	vi
Acid. Phos. Dil.....	$\frac{5}{3}$	ij
Vini Xerici q. s. ut ft.....		Oj
in the same dose as the emulsions.		

To this we sometimes add Wine of Pepsine and Tincture of Nux Vomica.

In cases where headache is a prominent symptom, we have derived benefit from this,

R

Glycerinæ.....	$\frac{5}{3}$	iv
Ext. Ergot. Fl.....	$\frac{5}{3}$	iss
Syr. Lacto-phos Calcis.....	$\frac{5}{3}$	iv
Vini. Pepsinæ.....	$\frac{5}{3}$	ivss

Dose: a tablespoonful after meals, in water.

In many instances we use Cod-liver Oil with Ale or Whiskey, or, again, Glycerine with Whiskey. We also employ largely all the bitter tonics, as Cinchona, Gentian, Colombo, either alone or in combination with Iron.

Another excellent tonic is presented in the following formula:

R

Acid Phos Dil.....	$\frac{5}{3}$	ij
Syr. Lacto-phos Calcis.....	$\frac{5}{3}$	vii
Elix. Calisayæ.....	$\frac{5}{3}$	vii

and is given in tablespoonful doses after each meal, in water.

In anæmic women with profuse hæmorrhagic menstruation, we have found benefit from the administration of 20 grains of Gallic Acid, from 20 to 40 drops of fluid extract of Ergot, one drachm of Glycerine and 3 ounces of water, three times a day during the flow. Usually improvement takes place in the mental condition with the improved nutrition and assimilation. Along with these remedies we also find it necessary to use sedatives and hypnotics, as Chloral, Hyoscyamus, Conium, Morphia, Lupulin, Cannabis Indica, both alone and in combination. Chloral alone, is used ordinarily in doses from 20 to 40 grains, sometimes, however, 60 grains are required, and in combination, 20 to 30 grains with one or two drachms of Tr. of Hyoscyamus. When there is much muscular restlessness, 20 to 60 drops of fluid extract of Conium are given at a dose. And in some of these cases it is advisable to give Conium through the day and Chloral and Hyoscyamus at night.

It is a well established fact that purgatives are not ordinarily indicated in cases of insanity, but that the condition of constipation is best met and overcome by laxatives. We use the fluid extract of Rhamnus Frangula, as prepared by Dr. E. R. Squibb, of Brooklyn. The usual dose is one drachm given at bedtime. If, however, this is not sufficient, the dose may be repeated as often as four times a day, and its effect may be increased by adding five drops of the Tincture of Nux Vomica to each dose. We have used this remedy for some ten years, and consider it among the most valuable laxatives. It acts as a stomachic and tonic and does not lose its effect or require to be increased in quantity from protracted use."

A plea is made for the establishment of special hospitals for the treatment of epileptics, an unfortunate class of persons, in whose welfare a new interest is aroused, from their frequent appearance in the criminal trials in this and other countries:

"The large number of epileptics received from year to year, mostly of the dependent class, would go to show the disposition in public officers to recognize the importance of provision for these unfortunates. There are not probably less than 300 of this class now in the various institutions for the insane, and in county houses, and the question arises whether provision for their care and treatment in proper hospitals should not be made. Until a comparatively recent date, the disease has been so little amenable to cure, or even alleviation, that they have been treated rather as subjects simply for custody and safe keeping. However, for some years past, and especially since the establishment of hospitals for epileptics in Eu-

rope, a great degree of attention has been bestowed upon them by a number of the ablest men in the medical profession; and it is not too much now to say, with results which would not only justify but demand that proper provision should be made for their treatment and care in specially designed hospitals. It is conceded by those who have had experience in attempting to treat them in hospitals for the insane, that it is not to their highest benefit, and is generally to the injury of the insane that they should be thus associated. This subject has become one of such vital importance that it was brought forward at a meeting of Superintendents of American Institutions for the insane, held in Baltimore in June last, and the subject there referred to a special committee, to report upon the necessary provision for this class. Whatever detailed provision may be thought best, from experience here and a knowledge of disease, I have no doubt it would be wise, in this State, to provide for them in a special institution, where they could be under the charge of medical men of skill and experience in their treatment. Besides this large number at public charge, such an institution would be immediately called upon to receive private cases, which would aid in lessening the expense to the public. It would also be of incalculable benefit to a class of fellow citizens, who though not only willing to pay, are now almost excluded from hospitals."

Dr. Gray was the first in this country to recommend the necessity, and advantage to science, of systematic pathological investigations by aid of the microscope and chemical examinations.

"These investigations have been faithfully made by a competent pathologist, and the results so far attained, have fully justified the expectations that had been formed of their value and importance to medical science and the public interest." Dr. E. R. Hun, of this city, who had held the position of special pathologist to the institution since 1868, resigned in January, 1873, and was succeeded by Mr. Theodore Deecke, a practical microscopist and student of pathology. The AMERICAN JOURNAL OF INSANITY is published at the Asylum, and contains valuable papers by the Medical Officers of the Institution and other contributors. The State of New York may well be proud of this exhibit of the labor performed and the good accomplished by this one of the noblest of its charities.

NEW YORK. *Report of the Bloomingdale Asylum: 1873.* Dr. D. TILDEN BROWN.

There were in the Asylum, at date of last report, 170 patients. Admitted since, 115. Total, 285. Dis-

charged recovered, 31. Improved, 29. Unimproved, 24. Died, 12. Total, 96. Remaining under treatment, 189.

NEW JERSEY. *Annual Report of the New Jersey State Lunatic Asylum:* 1873. Dr. H. A. BUTTOLPH.

There were in the Asylum, at date of last report, 700 patients. Admitted since, 131. Total, 831. Discharged recovered, 45. Improved, 71. Unimproved, 19. Died, 43. Total, 178. Remaining under treatment, 653.

NEW JERSEY. *Report of the Commissioners appointed to select a site and build an Asylum for the Insane of the State of New Jersey:* 1873.

The site selected is near Morristown. The labor of building has been rapidly progressed, and the wings on the left of the center building are under cover, and the foundations of the wings on the right are up to the sills of the basement windows.

PENNSYLVANIA. *Report of the Pennsylvania Hospital for the Insane:* 1873. Dr. THOMAS S. KIRKBRIDE.

There were in the Asylum, at date of last report, 395 patients. Admitted since, 261. Total, 656. Discharged recovered, 111. Improved, 54. Unimproved, 35. Died, 40. Total, 240. Remaining under treatment, 416.

The Doctor records his views of the value of entertainments and amusements for patients. He devotes much time and labor to what may be denominated the moral treatment. "For five years there has not been a single evening of any week, during fully nine months of the year, when there has not been some entertainment or exercise at the department for females, in which a large portion of the patients could participate,

and this system has been carried out to almost the same extent at the department for males."

The principal improvement for the year has been the completion of the North Fisher Ward. This is the second ward for women, which has been erected by the bequest of Joseph Fisher. The plan and a detailed description of the new ward are presented. This gives twenty wards for the women's department, and provides the most extensive classification for patients of any institution in the country.

Under the head of necessity for increased accommodations for the insane, Dr. Kirkbride makes a strong appeal for the erection of a sufficient number of institutions for all the insane of the State, and advances this as the only remedy for existing evils, and the only solution of the questions which are now being agitated. He says, "all are equally emphatic as to the duty of the State, and as to the humanity, justice and economy of such a course." * * * *

"What is wanted is a hearty union of all in advocacy of that which every one says is right." * * * *

"If it fail it will not be so much from an unwillingness on the part of the people, or their representatives, as from dissensions in the house of its friends." Regarding the care of the criminal insane, the Doctor has hit the nail on the head in the assertion. "Either a part of a prison has to be converted into a hospital, or a part of a hospital into a prison." The arguments in favor of the former are forcibly stated, and are drawn from experience, and the testimony of those best capable of forming a correct judgment upon the subject.

PENNSYLVANIA. *Fifty-Seventh Annual Report of the Asylum for the Relief of Persons Deprived of the Use of their Reason:* 1873. Dr. J. H. WORTHINGTON.

There were in the Asylum, at date of last report, 78 patients. Admitted since, 39. Total, 117. Discharged recovered, 17. Improved, 11. Unimproved, 6. Died, 2. Total, 34. Remaining under treatment, 81.

Dr. Worthington presents to the Managers an interesting report of the operations of the Asylum during the year, and adds instructive comments upon the special subjects of causation, care of the insane, occupation and ventilation.

PENNSYLVANIA. *Report of the State Hospital for the Insane, Danville:* 1873. Dr. S. S. SCHULTZ.

This is the first report made since patients were received into the Hospital. There have been admitted, 210 patients. Discharged recovered, 15. Improved, 8. Unimproved, 9. Died, 12. Total, 44. Remaining under treatment, 166.

The difficulty of presenting in a table of statistics, the real potential cause of insanity, in many cases, is thus forcibly presented.

Numerous illustrations of the same truth in other directions could easily be presented. Among the sources of fallacy under this head, is also the giving of only one cause, when it would often be difficult, if not impossible to describe correctly which one out of half a dozen was most potential. The last one of a series gets the credit of mischief, which belongs equally to a number, any of which would have been lifted into prominence had it been the last to come into play.

Many of the ordinary causes which figure in tables would not have influence enough to upset the intellect, did not heredity furnish the fertile soil that forces into rank growth the feeblest seed. This is not simply of theoretical interest, but it has its important practical bearings. The public should be taught that it is not a specific element which gives any circumstance its power to

derange the mind, but that where the susceptibilities exist it may be called into action by anything that affects the nervous system, whether by a sudden shock or the imperceptible wear of a daily trouble or sorrow, however small in itself. The loss of a night's sleep, an immoderate meal, a "cold," the giving away to a fit of anger, any unwelcome news, a thousand similar trifles may each become the spark that shall light up a great conflagration, or the dry material for some other spark to light up. The very important lesson then which the square cut figures of tables of causes fail to teach, is, that not this particular violation of the laws of our being, nor that one, causes insanity which being avoided all danger is avoided, but that every such violation whether of our physical or immaterial part facilitates an outbreak of mental disease, even where it does not directly cause it.

The report gives a detailed description of the plan of the Institution, of the material used in construction, and the measurements of its various parts. It also describes fully the out buildings, the water supply, and all the appurtenances of the Hospital.

PENNSYLVANIA. *Report of the Western Pennsylvania Hospital:*
1873. Dr. JOSEPH A. REED.

There were in the Hospital, at date of last report, 439 patients. Admitted since, 232. Total, 671. Discharged recovered, 60. Improved, 71. Unimproved, 50. Died, 40. Total, 221. Remaining under treatment, 450.

Dr. Reed gives a general resumé of the treatment adopted for the cure of insanity, both of a strictly medical, and of a moral character. He speaks confidently and from experience, of the value of occupation, and of various kinds of amusements in the treatment of the insane, and supplements his remarks, by a table showing the attendance of the patients upon the assemblages which have been frequently held for their recreation. The evil attending the deception of patients when bringing them to the asylum, and the

injury done by ill tried and injudicious visits, and by premature removals is noticed. He commends the action of the officers in sending so many of the dependent class of the insane to the Hospital; of the 450 present at the date of the report, 337 were sent by the public authorities.

The Managers mention the need of the Hospital for a new chapel, as the present one has to be used for all purposes for which the patients are called together. The suggestion is made in the hope that the friends of the Institution may make it the recipient of increased benefactions, a hope in which we cordially unite.

WASHINGTON, D. C. *Report of the Government Hospital for the Insane:* 1873. Dr. C. H. NICHOLS.

There were in the Hospital, at date of last report, 561 patients. Admitted since, 201. Total, 762. Discharged recovered, 66. Improved, 24. Unimproved, 7. Died, 45. Total, 142. Remaining under treatment, 620.

During the year, four cases of variolous disease occurred in the Hospital. It was introduced by an attendant who contracted it while on pass in the city. The other three cases were those of patients in the same ward. By vaccination and isolation, the further spread of the disease was prevented; one died and the other cases recovered. The chapel has been enlarged and refitted, an addition has been made to the farming lands, increasing the whole number of acres to 419. An extension to the wards for the excited class of patients has been made, and great pains were taken to adapt their construction, furniture and fittings for the class they were designed to accommodate.

MARYLAND. *Forty-Third Report of the Maryland Hospital for the Insane*: 1872-3. Dr. W. F. STEUART.

There were in the Hospital, at date of last report, 113 patients. Admitted, 1872, 133. Total, 246. Discharged recovered, and improved, insane, 52. Mania à potu, 58. Died, 14. Total, 124. Remaining under treatment, 122. Admitted, 1873, 116. Total, 238. Discharged recovered, insane, 52. Mania à potu, 35. Improved, 7. Died, 17. Total, 111. Remaining under treatment, 127.

For nearly half a century the Maryland Hospital, aided by the State, has assumed the care of the insane. In 1852 the Legislature inaugurated the enterprise of founding and building a new and greatly enlarged Hospital for the insane. The Institution was then commenced, and carried on by appropriations from the State till 1870, when it was determined to dispose of the old Hospital property, and to intrust the Board of Managers with the duty of completing the new building with the proceeds of the sale, and with appropriations from the State. They were afterwards to continue its operations as the State Asylum for the insane. The Institution is now completed and occupied; twenty-one years have elapsed since its commencement. It will accommodate 250 patients. The cost of finishing, furnishing, and removal from the old Maryland Hospital to the new State Asylum, was \$53,000 more than the proceeds of the sale, and the sums already given by the State, and the Asylum is in debt to that amount.

MARYLAND. *Thirty-First Annual Report of the Mount Hope Retreat and Mount Hope Institution*: 1873. Dr. W. H. STOKES.

There were in the Retreat, at date of last report, 225 insane patients. Admitted since, 116. Total, 341. Discharged recovered, 38. Improved, 33. Unim-

proved, 4. Died, 14. Total, 89. Remaining under treatment, 252.

There were in the Institution, at date of last report, 8 Inebriates. Admitted since, 219. Total, 227. Discharged recovered, 24 cases of Mania à potu. Improved, 193. Total, 217. Remaining under treatment, 10.

This Institution, as we learn from the report of the Superintendent, is now being subjected to a violent and calumnious attack from one of the papers of the city of Baltimore. This is the third time in the thirty years of its existence that it has been made the object of popular clamor. Charges of abuse of patients, of inhumanity and cruelty are freely made, and the Governor and Legislature are invoked "to establish a Board for the inquisitorial visitation of the Institution, to see who are illegally confined, to listen to the complaints of the patients, to determine what should be their treatment, and to exercise in fact a general supervision and governing control over the affairs of the Sisters."

This sounds very much like the insane and inane logic which has before cropped out in different parts of the country, and which has proved so taking with a few legislative bodies, but which, thanks to the good judgment and sense of right which predominates among the representatives of the people has met with so little favor. If this clamor has its origin in prejudice on account of religious belief, it must fail. It is too late in the day in this land to proscribe an individual, or charitable institution on account of religious creed or opinions. The treatment of this subject by Dr. Stokes is both manly and philosophical, and no doubt will have its weight with all right thinking men.

WEST VIRGINIA. *Annual Report of the West Virginia Hospital for the Insane:* 1873. Dr. T. B. CAMDEN.

There were in the Hospital, at date of last report, 286 patients. Admitted since, 33. Total, 319. Discharged recovered, 14. Improved, 2. On bond, 1. On trial, 1. Died, 16. Not insane, 1. Total, 35. Remaining under treatment, 284.

VIRGINIA. *Report of the Central Lunatic Asylum for Colored Insane:* 1873. Dr. D. B. CONRAD.

There were in the Asylum, at date of last report, 182 patients. Admitted since, 68. Total, 250. Discharged recovered, 29. Improved, 5. Not insane, 1. Died, 21. Remaining under treatment, 194.

Dr. Conrad in this his final report, gives a history of the Institution. From this we learn that the Asylum was established in 1865, under the auspices of the Freedman's Bureau, as a hospital for the sick and indigent freedmen. The colored insane of the State were also received for treatment. On the 17th of December, 1869, General Canby, then Military Governor of the State, re-established it as an asylum for the colored insane, and in June, 1870, the General Assembly incorporated it as a permanent State Institution, under the title of the Central Lunatic Asylum.

In July, 1870, the present corps of officers was placed in charge; there were then 150 patients. The ground is leased till 1879, at an annual rental, and the buildings are cheap wooden structures, with the former army hospital building as a base, to which additions have been made from time to time. It is warmed by stoves, and lighted by kerosene lamps, and great precaution is necessary to prevent destructive conflagrations. The cost per patient, per week, is \$4.71. As noticed in the last number of the JOURNAL, Dr. Conrad has, for pri-

vate reasons, tendered his resignation, which was accepted by the Directors, and Dr. Randolph Barksdale was appointed to fill the vacancy. The Institution has thus far accomplished a valuable work in relieving the other State institutions of the colored insane, and has benefited this large class of the citizens of the State.

VIRGINIA. *Report of the Eastern Lunatic Asylum of Virginia:* 1873. Dr. D. R. BROWER.

There were in the Asylum, at date of last report, 249 patients. Admitted since, 62. Total, 311. Discharged recovered, 21. Improved, 4. Unimproved, 1. Died, 17. Total, 43. Remaining under treatment, 268.

The report is mostly occupied with a detailed account of the Centennial Celebration, an abstract of which was given in the January number of the JOURNAL.

SOUTH CAROLINA. *Report of the Lunatic Asylum of the State of South Carolina:* 1873. Dr. J. F. ENSOR.

There were in the Asylum, at date of last report, 290 patients. Admitted since, 98. Total, 388. Discharged recovered, 27. Improved, 4. Unimproved, 14. Died, 34. Total, 79. Remaining under treatment, 309.

Regarding the unfortunate and deplorable financial condition of this Institution, we quote the statement of the Superintendent, Dr. Ensor, who deserves the highest credit, and the fullest sympathy, not only of all his fellow laborers in this special field, but of all who respect devotion and self sacrifice in others for the sake of suffering humanity.

For many years past the inadequate provision made for the support of the institution has been a source of the most awkward and disagreeable embarrassment to those charged with its management. For the past four years, at least, the institution has been run entirely upon credit.

Since I have been in charge, we have never had a dollar to pay the cash for anything. Even postage stamps have had to be bought on time. No one can, or ever will know the embarrassments to which I have been subjected since the beginning of my administration here. As the disbursing officer of the institution, I have not only not been able to pay the liabilities of the institution as they fell due, but, as an individual, I have not been able to pay my personal liabilities, from the fact that all my efforts, all my means, all my credit, and that of my friends, have been absorbed in maintaining the institution.

No amount of money would induce me to endure for another year the embarrassment, mortification and mental anxiety which I have endured for the past three years on account of this institution.

At the present time I am indebted to banks and individuals who hold my private paper to the amount of several thousand dollars, (among the liabilities of the Asylum occurs this item, advanced by Dr. J. F. Ensor, \$6,672.75,) which I have borrowed to defray the expenses of the Asylum; and to-day our Steward can not purchase a yard of dry goods or clothing, or a dollar's worth of fuel, for the institution has neither money nor credit. It was only yesterday that I was compelled to borrow three hundred dollars at two and a half per cent. a month, to buy coal with, or let my patients perish with cold and hunger. Gentlemen, I know I have your sympathy; but sympathy is poor food for hungry stomachs, and thin raiment for naked backs.

During the past two years it has been extremely difficult to raise supplies at any price. You all know what a struggle we had last year to keep the institution open. It has been little better this year.

The credit of the Asylum, like that of the State, of which it is a component part, and upon which it depends for support, is so thoroughly vitiated that scarcely any one can be found to credit it. Had it not been for the extraordinary efforts and great personal sacrifices made by Messrs. Hope & Gyles and W. D. Starling to obtain supplies for us during the past year, I am confident the operations of the institution must have been suspended, all the other merchants in Columbia having been vainly appealed to for aid.

The money appropriated by the State for the support of the institution for one year is usually not paid till the next, necessitating, in some instances, the sale of warrants drawn on these appropriations at a sacrifice of fifty cents on the dollar. The appropriation for 1871 and 1872, due on the first of November, 1871, was [not

paid till January, 1873, nearly fifteen months after it was due, the whole of which time the institution was supported upon credit.

Many improvements have been made during the year. The old basement dining rooms in the female department have been abandoned, and six new rooms, one for each ward have been opened. Two new kitchens, one for each wing have been prepared, and furnished with cooking ranges, circulating boilers, and other necessary apparatus. Hot air furnaces, and dumb waiters have been introduced, two old buildings formerly used by the colored insane who were transferred to wards in the main building, have been fitted up, one for a chapel and lecture room, and one for a billiard room. Over 1,000 feet of brick sewers have been laid, roofs have been painted, and new water closets have been built. These repairs and improvements were absolutely necessary to the comfort and proper care of the patients, and were demanded by the condition of the buildings.

MISSISSIPPI. *Annual Report of the Mississippi State Lunatic Asylum: 1873.* Dr. W. M. COMPTON.

There were in the Asylum, at date of last report, 231 patients. Admitted since, 137. Total, 368. Discharged recovered, 30. Improved, 1. Unimproved, 4. Died, 27. Eloped, 2. Total, 64. Remaining under treatment, 304.

Dr. Compton presents in his reports, the arguments which should induce the Legislature to increase the accommodations for the insane. The Institution is crowded with incurables, and by legal enactment, all cases must be admitted in the order of their application. This gives no preference to those of recent origin. At their last session, the Legislature abolished the Vicksburg Hospital, and the Natchez State Hospital,

which had cared for some of the chronic cases, and in this had materially aided the State Asylum, and sent all the insane back to that Institution. This influx has overcrowded the Asylum, and rendered further admissions impossible. We can but consider this policy of the State as short sighted, unjust, and extravagant, unless it be followed by the erection of accommodations for all its insane citizens. The time of Dr. Compton's appointment, four years, expires in May next. From the success which has followed his labors, and the estimation in which he is held by the Managers and the people of the State, we are happy to record his unanimous re-appointment to the position he holds.

NEBRASKA. *Report of the Nebraska Hospital for the Insane:*
1873. Dr. CHARLES F. STEWART.

There were in the Asylum, at date of last report, 53 patients. Admitted since, 38. Total, 91. Discharged recovered, 16. Improved, 9. Unimproved, 3. Eloped, 1. Died, 2. Total, 31. Remaining under treatment, 60.

In July last, the present Hospital structure was occupied, and the temporary building which had been used for ten years was abandoned.

The Hospital contains thirty-nine sleeping rooms designed to accommodate one person each. Thus far they have mostly been occupied by two persons to the detriment of those under treatment. The necessity of prompt treatment in cases of insanity is set forth at some length in the report. The usual disadvantages and discomforts attending the opening of an institution for the reception of patients have fallen to the lot of Dr. Stewart and his associates.

ONTARIO. *Asylum for the Insane:* Toronto, 1873. Dr. JOSEPH WORKMAN.

There were in the Asylum, at date of last report, 627 patients. Admitted since, 131. Total, 758. Dis-

charged recovered, 58. Improved, 20. Unimproved, 5. Died, 49. Total, 132. Remaining under treatment, 626.

The Doctor in commenting upon the nationality of the admissions during the year, congratulates himself upon the fact that Canada now produces sufficient insanity for its own domestic wants, the number of native born citizens being gradually on the increase in comparison with the foreign element. After giving the statistics of the various religious denominations, he testifies to the little value to be attached to them. "Insanity recognizes the boundaries, neither of nationality nor of religious creeds. It is a terrific leveller, and teaches us, despite the high flown preconceptions, that we are all of one blood, and subject to like infirmities." We must accord to our Canadian neighbors the credit of great skill in the way of peculation, as we have not learned in this country the method of stealing real estate. The Doctor complains of the little peculation of thirty acres of land from the Asylum farm by the authorities of the new central prison. The conundrum, why 360 criminals should have a water supply greater than 650 innocent persons, should be answered by doubling the supply to the Asylum.

NOVA SCOTIA. *Hospital for the Insane*: Halifax, 1873. Dr. J. R. DEWOLF.

There were in the Hospital, at date of last report, 259 patients. Admitted since, 74. Total, 333. Discharged recovered, 44. Improved, 4. Died, 17. Total, 65. Remaining under treatment, 268.

The law giving preference to the admission of recent cases has been strictly carried out, notwithstanding the urgent entreaties and powerful appeals made in behalf of many cases of the chronic class. Applications for forty patients were refused. Dr. McKeagney who had

for more than six years filled acceptably the position of assistant physician, died in December last, of phthisis.

The reports of the Commissioners made at the date of the various visits, represent the Institution as in an admirable condition, and as reflecting great credit upon the Superintendent and those associated with him. New heating apparatus has been introduced in the new wing of the Asylum, and is giving full satisfaction, it is the same as that in use in the States, by which a separate radiator is provided for each flue. This gives the power of regulating the amount of heat, and the temperature, for every section of the building.

NEW BRUNSWICK. *Report of the Provincial Lunatic Asylum:*
1873. Dr. JOHN WADDELL.

There were in the Asylum, at date of last report, 243 patients. Admitted since, 91. Total, 334. Discharged recovered, 43. Improved, 10. Unimproved, 1. Died, 36. Total, 91. Remaining under treatment, 243.

QUEBEC. *Report of the Quebec Lunatic Asylum: 1872-73.* Drs.
J. E. J. LANDRY and F. E. ROY.

There were in the Asylum, at date of last report, 788 patients. Admitted since, during eighteen months, 315. Total, 1,103. Discharged, 110. Died, 109. Remaining under treatment, 884.

Dr. Roy has presented a large and exhaustive report, regarding not only the operations of the Institution over which he so ably presides, but also the subject of insanity, its causation, pathology and other points of interest. It is a report, which, in utility, equals many of the volumes which treat of the subject in its different aspects and relations. His statements are sustained, by statistics and quotations from English, American and foreign authorities. It is too common for the medical heads of institutions to confine themselves to giving mere statistical matter in their official

reports. Dr. Roy is to be commended for so signal a departure from such a course, and for giving the medical profession and the public, the analyzed results of clinical observations. The report is printed in English and French.

FOREIGN REPORTS.

Twelfth Annual Report of the Cumberland and Westmoreland Lunatic Asylum: 1873. J. A. CAMPBELL, M. D.

Twenty-Third Annual Report of the Wilts County Asylum: 1873. J. WILKIE BURMAN, M. D.

Eighth Annual Report of the City of London Lunatic Asylum: 1873. OCTAVIUS JEPSON, M. D.

Twenty-First Annual Report of the County and City of Worcester Asylum: 1873. JAMES SHERLOCK, M. D.

Sixteenth Annual Report of the Cambridgeshire Lunatic Asylum: 1873. G. MACKENZIE BACON, M. D.

Report of the Chester County Lunatic Asylum: 1873. JOHN H. DAVIDSON, M. D.

Twenty-Sixth Annual Report of the Somerset County Lunatic Asylum: 1873. C. W. CARTER MADDEN-MEDLICOTT, M. D.

Annual Report of the Royal Edinburgh Asylum: 1873. DR. T. S. CLOUSTON.

REPORTS OF STATE BOARDS, TRANSACTIONS OF SOCIETIES, &c.

Fifth Annual Report of the State Board of Health of Massachusetts: January, 1874.

This is a voluminous report of 550 pages, and contains many articles of interest in sanitary science. There is a full description and plate of the New Brighton Abattoir. It has been in use for six months, and fully answers the purposes for which it was erected. It

is intended to take the place and to abate the nuisance of all the slaughtering establishments, from which the City of Boston formerly obtained its supplies of butcher's meat. The difficulties attending its establishment are now fairly surmounted, and the Board look confidently to its future growth and prosperity, and to a constantly increasing diminution of slaughter houses on the old plan. Since the middle of June last, the killing of beefes and sheep and calves, the rendering of offal, and the drying of blood and tankings have been going on continuously, and no offensive odors have proceeded from the premises. This is due in great part to the management of the apparatus for destroying offensive gases by fire during both day and night. In this regard it is in advance of the European establishments of like character. Dr. Henry I. Bowditch, the Chairman of the Board, furnishes a paper on "Preventive Medicine, and the Physician of the future." In this article is defined the position which the physician will occupy in relation to the public, when the idea of prevention rather than the cure of disease, gains sway in the community; when the physician will be called upon to direct all the hygienic surroundings, and to furnish sanitary rules for living, rather than to attempt to meet disease by direct medication as is too largely done at the present time. He portrays the grand success of the new idea now in its infancy, and in opposition to President Barnard, who, in his address before the Health Association of New York, told his medical hearers that their doom was sealed under the steady advance of modern science, contends that the physician of the future will stand higher than ever in the estimation of the public, from his greater ability to direct them in the adoption of such measures as will prolong their lives, and ward off attacks of disease.

"The health of the farms of Massachusetts," by Dr. J. F. Adams, of Springfield, and "Some farm houses, some mistaken ways of living in them," by Mrs. Thomas F. Plunkett, of Pittsfield, Massachusetts, are two papers of great value to the farmers of the State. Were they freely circulated and read, their influence would be most beneficial upon the farming classes. They would see themselves as others see them, and would be able to avoid many of the dangers to which they now recklessly and unnecessarily expose their health and lives.

The paper on Cerebro-Spinal Meningitis, by Dr. Upham, of Boston, is a most valuable record of a terrible disease. It rests on a correspondence with physicians throughout the State, and its deductions are drawn from more than five hundred cases. Its special cause has not been unravelled, but important deductions of the necessity of cleanliness and observance of hygienic and sanitary laws are given.

The general result from an extensive review of the subject of "Hospitals," by Dr. George Derby, is that they should be built of a height of one story, because ventilation thus becomes simple and manageable. This accords with the general opinion of those most accustomed to caring for patients, in hospital buildings, and more especially of those who have had an army experience. These views would, no doubt, be oftener put into practical operation, were it not for the difficulty of getting sufficient ground, and the great expense for building in our large cities where hospitals are mostly erected.

It is difficult to give an analysis or description of Dr. Jarvis' paper on the "Political Economy of Health," within our limits. He illustrates, by statistics, the value of health to the community, and shows the duty of government to legislate upon those sub-

jects which affect the lives and health of its people, and also treats at length of insanity as a form of disease, especially worthy of notice from its frequency and persistence. The sub-divisions, are the cost of restoring the insane; the burden of insanity in Massachusetts, and the constant recurrence of insanity. The whole article is replete with interesting facts, and illustrations. There may, however, be an honest difference of opinion in regard to conclusions, as we find to be the fact among all writers upon political economy.

“School Hygiene,” by Dr. Frederick Winsor, is an excellent article, and should be read by medical men, by teachers, and those interested in the education of children.

The report closes with the usual reports on the health of towns.

Fifth Annual Report of the Board of State Charities and Corrections, of Rhode Island: 1873.

The report contains little beside statistical tables, vouchers for expenditures, and the inventory of property belonging to the State Farm and State Asylum for incurables.

Sixth Annual Report of the Board of State Commissioners of Public Charities, (now the State Board of Charities) of the State of New York: 1873.

The classification of charities subject to visitation of the board is as follows: State, Local and Incorporated Charitable Institutions. These are reported by the board to be in a flourishing condition, and to be performing the duty for which they were established, in a satisfactory manner. They recommend an extension of their supervisory powers to include all the private institutions for the care of the insane, and also for the appointment of a Commissioner in Lunacy. This recom-

mendation was favorably received, and Dr. John Ordronaux, LL. D., was appointed to the position thus created. In the appendix is the report of the board relating to the management of public Institutions against which charges had been preferred. Upon an investigation, charges of mal-administration alleged against the Juvenile Guardian Society, of New York, were sustained, and a report was made to the Comptroller, advising the withholding of the last annual appropriation.

Charges made against the Dispensary and Hospital Society of the Women's Institute, for having obtained a fraudulent appropriation, were substantiated, the charter was annulled, and the assets of the corporation placed in the hands of a receiver.

Charges of mismanagement, cruelty and abuse of inmates of the House of Refuge on Randall's Island, were held to be not proven.

Charges made against the Department of Public Charities and Corrections, of the City of New York, for mismanagement in the administration of the affairs in the City Asylum for the Insane, on Ward's Island, were not sustained. A full report of their various examinations is given.

The Secretary of the Board, Dr. Charles S. Hoyt, has made a return of all the insane of the State, on the 31st of December, 1871. They were located as follows:

In the custody of friends,.....	1,582
In the State Institutions,.....	1,093
In private Institutions,	312
In City Alms Houses and Asylums,.....	2,333
In County Poor Houses and Asylums,.....	1,319
In Institutions of other States,	161
In Asylum for Insane Criminals,.....	75
 Total,	 6,775

Recovered during the year,	761
Died during the year,	502
Total Insane for the year,.....	8,038

This probably gives the number of insane in the State more correctly than any census of that class which has been recently made, as the returns were very full, and great care was taken that there should be no duplication of names. The statistical and financial tables are numerous and full.

Second Biennial Report of the Board of State Commissioners of Public Charities of the State of Illinois: 1872.

This report gives a minute history of all the charitable institutions of the State of Illinois, and all the essential facts regarding their management and condition, their expenditures, their wants, the method of keeping accounts, and in short, of everything relating to them which can be of interest to the Executive, the Legislature and the public. As to what has been accomplished by them, we make the following quotation from the report before us.

1. The inspection of the state institutions, as required by law.
2. The inspection of the county institutions.
3. The special census of the insane population of the state, in 1869, by correspondence with physicians.
4. The census of the idiotic population, at the same time.
5. The critical examination and analysis of the results of the Ninth Census, by the national government, in its relations to the four unfortunate classes, namely, the insane, idiots, blind and deaf-mutes.
6. The preparation of a series of statigraphic charts, illustrating and demonstrating the laws which govern the distribution of misfortune, by age, sex, race, nativity, and locality.
7. The adoption of a system of registration of the criminal and pauper population of the state, uniform for all the counties.
8. The adoption of a system of uniform reports by the officials of state and county institutions, for examination and comparison, quarterly or semi-quarterly.

9. The special examination and investigation of the accounts of the Soldiers' Orphan Home, in 1871.

10. The digest, as contained in this report, of all the laws upon our statute-books, relating to state institutions.

11. The collection of a library of reports and documents upon the subjects within our peculiar sphere of investigation, not excelled in completeness and extent, probably, by any in the United States.

12. The preparation of two extended and exhaustive reports, for publication by the state, containing a very considerable fund of information and suggestion, statistical and otherwise.

Besides the labors above enumerated, a vast amount of routine work in the office and elsewhere has been performed, in the way of correspondence, personal interviews, etc., which can not be specified in detail. Three conferences have been held, at different dates, under the auspices of the board; one on insanity, and the comparative merits of the congregate and segregate systems of treatment by representatives of state institutions, and invited speakers from this and adjoining states, at which letters were read, from nearly all the medical superintendents of the United States; another, on prisons and prison discipline, by the boards of charity of Illinois, Michigan and Wisconsin, at Chicago, at which a declaration was unanimously adopted, which circulated extensively in the newspapers of these three states; and still another, by the presidents of the various boards of trustees of state institutions in Illinois, concerning the requests for appropriations presented to the Twenty-eighth General Assembly. Our correspondence with the officials of state institutions in other states, particularly on the subject of statistics of the cost and results of their work, has been very extensive, and among the unenumerated results of our own labors, we may specify the preparation of statistical tables of the information thus obtained, especially of the history of the rise, growth and cost of the insane hospitals of the United States.

These labors have been, on the part of the board, wholly gratuitous. They have consumed a great deal of time, averaging from sixty to ninety days for each member, every year, since our organization. We feel that the tax imposed upon us by our position, although our services have been freely and cheerfully rendered, is greater than we can well endure, and we ask, if not compensated for our time, to be relieved from a portion of our obligations. The secretary of the board receives a salary, and has given his whole time, for four years, to the state, without a day's vacation or rec-

reation, during the entire period. The cost of the board, as shown in the reports of the Auditor of Public Accounts, has been very little over five thousand dollars *per annum*. The estimated expense, and the annual appropriation made by the last Assembly was seven thousand dollars *per annum*, but by strict economy, we have saved over one-fourth of what we were authorized to expend.

We believe that we can point to our record, with confidence that it will meet the approval of the Assembly and of the people of the state.

If sustained by the Assembly in our effort to improve the system of public charity in Illinois, and to introduce methods of accounts, records and reports, which will secure strict accountability on the one hand, and such statements of facts and principles on the other, as to afford a safe and trustworthy basis for legislative action, we hope to be of increased service during the coming two years. If the Assembly regards the necessity for this board as past, and desires to dispense with it in the future, we shall cheerfully acquiesce in that decision, and retire to our private occupations and pursuits. But our firm conviction is, that without such central supervision, in some form, as we have endeavored to give, the system of state and county relief can not be made to yield its most valuable fruits.

Special Report of the Commissioners of Public Charities on the number and condition of the incurable insane in the State of Illinois. Presented to the Senate, February 14, 1874.

This report was made in accordance with a resolution of the Senate, asking "whether they can not devise some plan and find some place in the many asylums of the State, where the incurable insane can be accommodated and cared for without cost to relations or friends." This resolution led to an enumeration of the insane and of their probable condition as to curability.

There are about 3,000 insane in the State, or one to every 846 of the inhabitants, and of this number, about 2,400 are probably incurable. Upon the completion of the Northern Asylum at Elgin, and the Southern, at Anna, there will be accommodations for about 1,700 insane, leaving 1,300 still unprovided for, in

Asylums. Regarding the provision which should be made for these, the commissioners adopt as their opinion, the resolutions passed by the Association of Superintendents of American Institutions for the Insane at their meeting in Toronto, 1871, and sustain them by the following statements :

1. It is impossible to discriminate, in individual cases, and with absolute certainty, between curable and incurable insanity, yet some surprising recoveries take place, even where the disease is of long standing.

2. If it were even possible to determine in every instance whether a given patient is or is not curable, yet the branding of any patient as incurable, by assigning him to an institution designed exclusively for incurables, would be a cruelty to the patient and to his friends, for it is always cruel to rob a man of hope, his last consolation in the presence of any ill.

3. Of whom nothing is expected, nothing will be obtained. If it is understood by the Superintendent and by the public that his patients are beyond the reach of hope, the greatest stimulus to exertion on his part will be removed, and the result will be laxity of discipline, inefficient nursing and medical care, general deterioration in the management, and, in the end, disgraceful failure.

4. In an institution designed for the incurably insane alone, the frequent communication with the outside world secured by the constant discharge of recovered patients would be lacking, and thus an important safeguard against the growth of abuse would be removed.

5. It would not be possible to prevent the admission to any hospital or asylum of patients from the immediate vicinity, who were curable, and, if possible, it would not be desirable.

6. All experience shows that the presence of chronic cases of insanity in any institution has a happy influence over the newly insane, and is an aid, not only to discipline, but to recovery on their part.

7. If the separation of the incurable from the curable insane is the question to be determined, then the form of the inquiry should be, not whether to make separate provision for the chronic insane, but whether we shall make separate provision for recent cases; for the recent cases are the less numerous of the two.

For these and other reasons they advise the erection of additional hospitals, whenever the condition of the finances of the State will admit of it. They then recommend the abolition of the pay list, and that the State assume the care of the incurable insane without cost to relatives or friends.

This decision of the commissioners is just and right, and in accord with experience, and the most advanced and enlightened view of the subject.

Third Annual Report of the State Board of Charities and Reform of the State of Wisconsin: 1873.

The Secretary of the Board presents a full and interesting account of his visit to the prisons and other public institutions of Great Britain and Ireland. He finds much to commend, and many things which it might be well for the authorities of our penal institutions to copy. That our trans-Atlantic friends surpass us in their care and treatment of the criminal classes, both as regards economy, and in the result of prison discipline and punishment, upon the morals of the prisoner, does not admit of doubt.

The classification of those in confinement is made with regard to the effect of association. There is no promiscuous herding together of the old and the young, the hardened criminal and the comparatively good—those convicted and those only charged with crime. Idleness which is the real cause of much that is evil in our own system, is not allowed, even though labor and occupation are enforced by the “tread wheel,” the “crank machine,” or the “shot drill”—modes of punishment, which in this country are regarded as relics of cruelty and barbarism. This portion of the report is well timed, and should have an influence in the prison reforms now agitated. The record of official meetings

of the Board, with an account of their visits to the poor houses, jails, and charitable and correctional institutions, occupy a large part of the report.

Of the Insane Asylums, the State Asylum at Madison, and the Northern Hospital at Oshkosh, the Board speak in terms of commendation, and urge the Legislature to make the appropriations asked for in the conduct of these institutions. They urge the speedy completion of the Northern Hospital, and call attention to the able report of Dr. Kempster, the Superintendent; they second the recommendation of the trustees in relation to supplying the Institution with the scientific apparatus necessary for pathological investigations. In reply to criticism upon their action, the Board assume the defensive, and give the results so far attained by their labors. Judging from their reports of the improvements, noticed from year to year, in the conduct and management of the various classes of institutions over which they have exercised a supervisory power, the State may well be satisfied with the manner in which their duties have been performed.

Transactions of the Twenty-Third Meeting of the Illinois State Medical Society: 1873.

The meeting was held at Bloomington. Addresses of welcome were delivered in stately prose and stilted verse, by their wise men and sweet singers. All Bloomington rejoiced, and were made glad, and the whole population greeted the Doctors. Their coming was like that of an army of deliverance with banners. To respond to such an out-pouring of kindly feeling, must have severely taxed the followers of Æsculapius whose motto is "deeds not words," and who live by practice not by preaching. The end was reached at last, and the Doctors proceeded with their business.

The papers read, and discussions following them are certainly of more than usual interest. The report upon Galvano-Therapeutics, by Dr. David Prince, is a valuable addition to our knowledge upon this subject. His paper is made more interesting and of greater practical use to the practitioner from the fact, that the exposition of principles is accompanied by cases illustrating the mode of use, and the value of this form of treatment in different pathological conditions. It has been reprinted in pamphlet form for distribution. Dr. N. S. Davis read a paper on chronic Cerebro-Spinal Meningitis, giving cases and treatment.

Dr. Charles W. Earle gave a short account of some facts recently developed regarding the physiology of the nervous system, and Dr. G. Wheeler Jones made a report on meningeal fever. The report of the Committee on Medical Jurisprudence was made by Dr. Andrew McFarland. The larger portion of it is devoted to questions of mental state. He advocates the removal of questions relating to insanity, from an ordinary jury to a commission of experts, and concludes with pointing out the difficulty under which the physician labors when placed in the witness box. The discussions which followed the reading of papers and reports are an addition to the transactions which has not been adopted by other medical organizations.

Transactions of the Medical Society of the District of Columbia:
April, 1874.

Tenth Annual Report of the Board of State Charities of Massachusetts. To which are added the reports of its several officers:
January, 1874.

Forty-Eighth Annual Report of the Massachusetts Eye and Ear Infirmary: 1874.

Eighty-Fourth Annual Report of the New York Dispensary: 1874.

Forty-Second Annual Report of the Perkins Institute and Massachusetts Asylum for the Blind: 1873.

Sixth Annual Report of the New York Orthopædic Dispensary: 1874.

School Hygiene. Dr. J. O. SULLIVAN. Read before the New York Academy of Medicine, June 10, 1873.

Memorial of Dr. William C. Roberts. Read before the New York Academy of Medicine, by GOVERNEUR M. SMITH, M. D.

The Conditions of the Conflict. An oration delivered before the Kings County Medical Society, February, 1874. ALEXANDER HUTCHINS, M. D.

Rupture of the Perineum, its Causes and Cure. By A. K. GARDNER, M. D., Professor of Obstetrics and Diseases of Females, in the New York Medical College.

Syphilitic Membranoid Occlusion of the Rima Glottidis. By LOUIS ELSBERG, M. D. (Reprinted from *American Journal of Syphilography and Dermatology*.)

Cases in Surgery, Lumbar Colotomy, etc. By J. H. POOLEY, M. D. (Reprinted from the *New York Medical Journal*, January, 1874.)

Urethrotomy, External and Internal, combined in cases of multiple and difficult strictures. By FESSENDEN N. OTIS, M. D. (Reprinted from the *New York Medical Journal*, April, 1874.)

Electrolosis in the treatment of Stricture of the Urethra. By ROBERT NEWMAN, M. D. (Reprinted from *Archives of Electrology and Neurology*, for May 1874.)

Journal of the Board of Supervisors of Rensselaer Co: 1873.

Experts as Witnesses. A Lecture delivered before the New York Medico-Legal Society, February, 1874. By HORACE BARNARD.

The Rights of the Insane. By JULIUS PARIGOT, M. D. A paper read before the Medico-Legal Society, of New York. (Reprinted from the *Sanitarian*, May, 1874.)

The Hereditary Insane Neuroses or Neuroses Spasmodica, with illustrative cases. Read before the St. Louis Medical Society, by CHAS. H. HUGHES, M. D.

BOOK NOTICES.

Dictionary of Elevations and Climatic Register of the United States, containing in addition to elevations, the latitude, mean annual temperature, and the total annual rain fall, with a brief introduction of the orographic and other physical peculiarities of North America. J. M. TONER, M. D., D. VAN NOSTRAND, New York, 1874.

This work, he says, has been undertaken chiefly to place within the reach of the medical profession a record that may enable and induce professional men in different localities, to observe, record, and contrast the influence of elevation, if it has any, on health and disease.

Hitherto latitude and longitude have been the chief and almost the only conditions modifying climate, that have been taken into account in considering the influence of localities on health; but the observations of physicians and travelers, present facts, suggesting that altitude to some extent controls the type of diseases. It is also necessary that the influences of atmosphere regarding its dryness and humidity, and the state of the barometer should be taken into account.

Regarding the location of our cities and towns, a table of 311, given in this dictionary, shows that a majority of the inhabitants are living at an elevation of but a few hundred feet, and that there are eighty cities which are less than one hundred feet above tide water. It does not appear that the site of a single city in the United States has been selected, because of the special salubrity of the location. There is a noticeable peculiarity in the location of our American cities, at or

near the mouth of rivers emptying into the Atlantic ocean, that they are all situated on the left bank. The conclusions in regard to disease are valuable and interesting. Yellow fever in the United States has never reached a higher elevation than 400 feet, and rarely above Vicksburg (175,) and Memphis, (225.) As regards pulmonary disease, there is a growing distrust in the curative influence of the sea shore, and the low and damp coast of the tropical islands so extensively patronized in the past. The apprehension that high elevations, because of the lessened barometric pressure may induce haemorrhage where the lungs have been weakened by disease has not proved to be well founded.

A Practical Treatise on the Surgical Diseases of the Genito-Urinary Organs including Syphilis. By W. H. VAN BUREN, A. M., M. D., Professor of Surgery in the Bellevue Hospital Medical College, Charity Hospital, &c., &c., and E. L. KEYES, A. M., M. D., Professor of Dermatology in Bellevue Hospital Medical College, Surgeon to Charity Hospital, Venereal Division, &c., &c. D. APPLETON & Co., 549 and 551 Broadway, New York.

We have rarely met with so attractive a work upon a scientific subject, and one that combines so many good qualities as this by Professors Van Buren and Keyes. It is virtually a monograph upon each of the diseases of which it treats. It is comprehensive in scope, practical in detail, and is written in an attractive and instructive manner.

Both authors have enjoyed unusual facilities in Hospital practice, and are specially qualified for the task they have assumed. The book occupies a place in medical literature which has heretofore been but partly filled by works on surgery, and very properly left vacant by writers on general medicine. The established principles of practice, the literature of the subject and the experience of the authors have been admirably in-

terwoven, and are so presented as to avoid both the tediousness of quotation, and the egotism of personal allusion. We read the book with pleasure and profit, and conscientiously recommend it to our readers.

The Puerperal Diseases; Clinical Lectures, delivered at Bellevue Hospital, by FORDYCE BARKER, M. D., Clinical Professor of Midwifery, and Diseases of Women in the Bellevue Hospital Medical College, &c., &c. D. APPLETON & Co., 549 and 551 Broadway New York.

This book, as stated on the title page, is a reproduction, in print, of the lectures which Dr. Barker has delivered for twenty years, before the successive classes of the Bellevue Hospital. They are given to the profession from an imperative sense of duty and of responsibility to utilize for the good of humanity, the experience which the author's superior advantages have given him. The advancement in medical science is the apology to his former students for the changes in pathological views and in treatment. The past few years have been marked by progress in this department of medicine which has been brought about, to a great extent, by the societies and journals, devoted to obstetrics and gynaecology. The lectures are devoted to the consideration of all the accidents and incidents relating to the puerperal state, exclusive of midwifery proper. They are of great interest and importance to the profession, and are presented by the author and publisher in an attractive style and form. It is not necessary for us to commend any work of Prof. Barker's, as the announcement is sufficient to insure their favorable reception. We congratulate the publishers that they are able to furnish two such valuable works as Van Buren and Keyes, on the Genito-Urinary Diseases, and Barker's Lectures on Puerperal Diseases.

Manual of Chemical Analysis, as applied to the Examination of Medicinal Chemicals. FREDERICK HOFFMAN, Ph. D. D. APPLETON & Co., 549 and 551 Broadway.

This book was published in 1873, and has therefore been some months in the hands of the profession. During this time it has established for itself a reputation for usefulness and accuracy in chemical details which has made it valuable to the pharmacist and the dispensing physician. With such efficient aid as this can give, it is simply folly, and we may add criminal neglect, if adulterated or impure chemicals are used in compounding medicines. The aim of the author is to protect his own and the medical profession, from the evils arising from the cupidity of the manufacturer of medicinal chemicals.

An Introduction to Physical Measurements, with Appendices on Absolute Electrical Measurements, etc. By Dr. F. KAHLRAUSCH, Professor in Ordinary at the Grand Ducal Polytechnic School at Darmstadt, &c., &c. Translated from the second German edition. D. APPLETON & Co., 549 and 551 Broadway, New York.

S U M M A R Y.

—Dr. J. M. Boyd and Dr. J. M. Brannock, have been appointed the Superintendents of the Eastern and Western Tennessee Asylums, respectively. These Institutions were organized by the last Legislature, and their sites have not as yet been definitely settled upon.

—Dr. D. H. Kitchen has resigned the position of Superintendent of the State Emigrant Asylum, on Ward's Island, N. Y.

—Dr. J. T. Webb has resigned the Superintendency of the Longview Asylum, Ohio, on account of ill health. The Board of Managers gave expression to their kindly feeling, in the following resolution:

“*Resolved*, That Dr. J. T. Webb having tendered his resignation as Superintendent of Longview Asylum by reason of ill health, the Board of Directors in accepting his resignation express to him their sincere regret that his health should have been impaired by his residence at the Asylum, and their earnest hope that a change of scene and climate may soon entirely restore it. They tender to him their warm thanks for the kindness he has always manifested toward the unfortunates committed to his charge, and for the deep interest he has taken in the welfare and well-doing of the Institution over which he has presided, and for the prudence and economy which have ever characterized his administration.”

Dr. W. H. Bunker, of Carthage, was elected the successor of Dr. Webb.

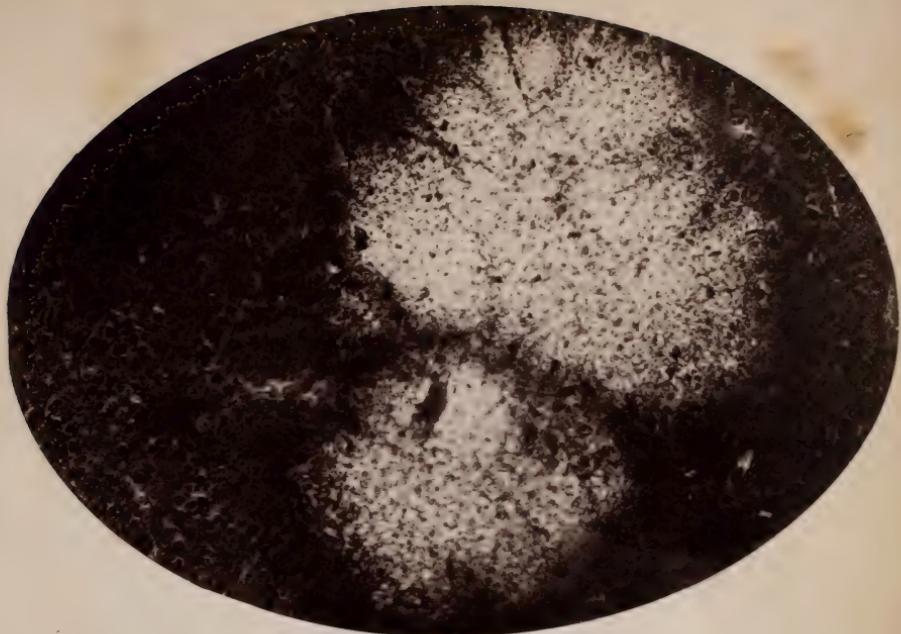
—Dr. Catlett has been appointed the Superintendent of the new Missouri State Asylum, located at Saint Josephs.

—From the *Detroit Free Press* :—The new Asylum for the Eastern District of Michigan, is likely to be located near the city of Detroit. To insure this, \$80,000 must be raised by subscription. From the progress thus far made, “there is no doubt that the full amount required will be speedily forth coming.” We congratulate the State on the wisdom of the Commissioners in locating the building near a populous center, embracing every possible advantage for an institution of the kind.

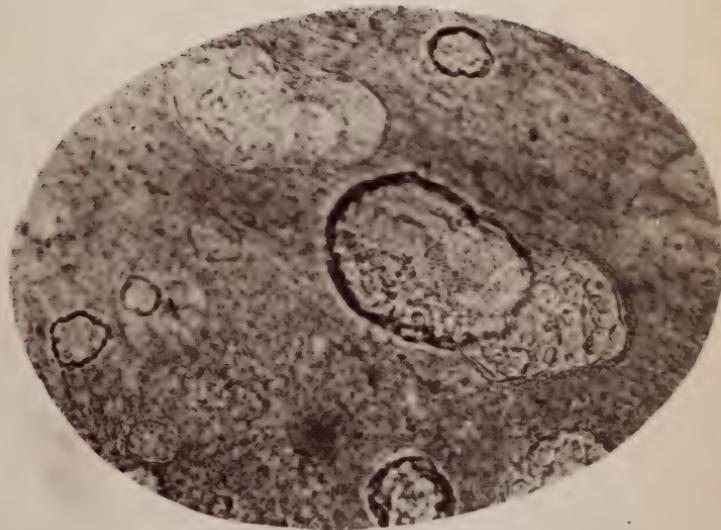
—The work of Dr. Brigham on the “Influence of Mental Cultivation and Mental Excitement on Health,” has just been re-published by Hatchards, of London, April, 1874, in a very neat style.

—Hon. Joseph Battell, formerly of Norfolk, Conn., recently deceased, among his numerous bequests, left \$10,000 to the Hartford Retreat.

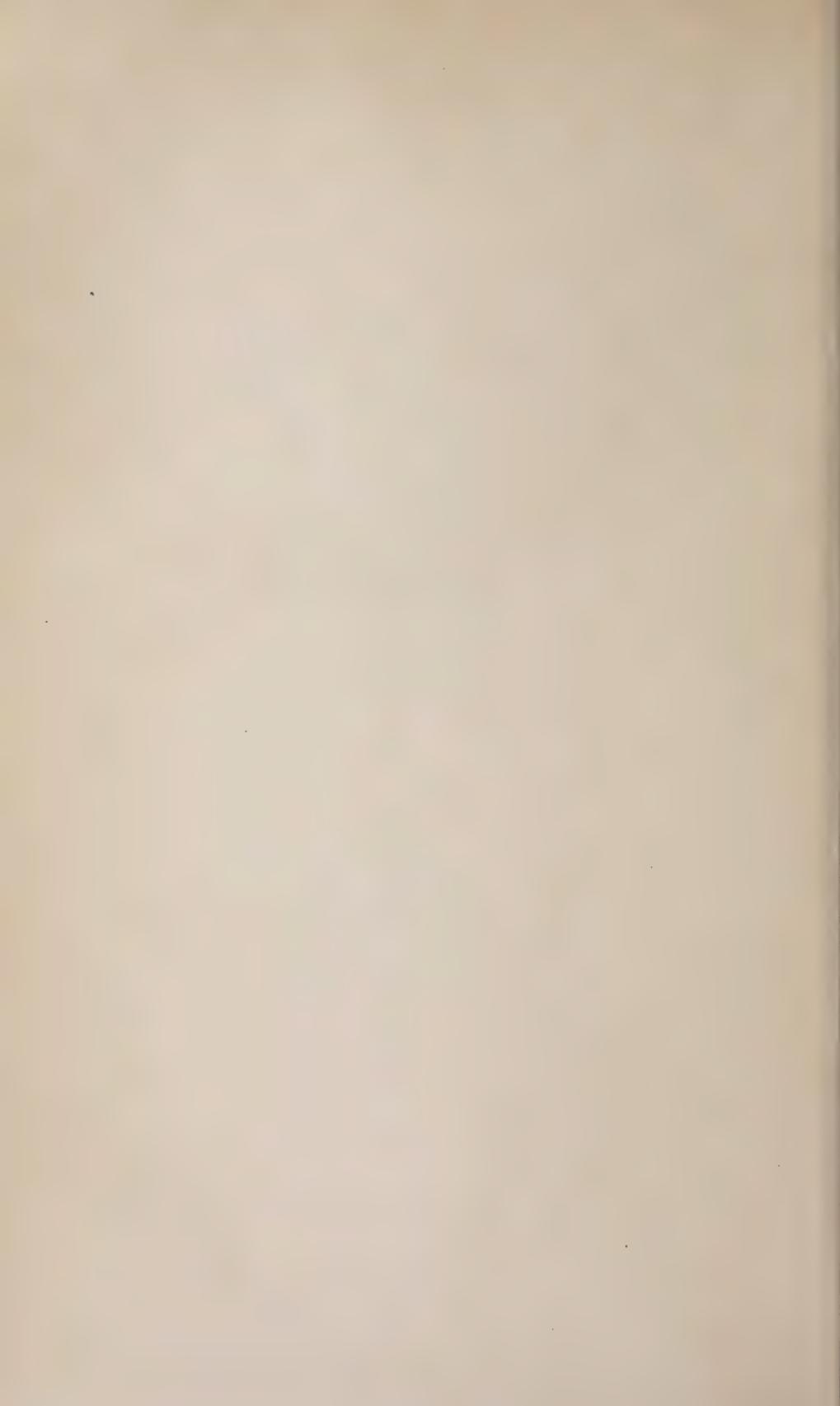
OHIO STATE ASYLUMS, CORRECTION.—In the April number of the JOURNAL, page 489, we stated, “In Ohio an effort is being made to enact a law of trial by jury, before committal to asylums.” This information we received in a letter from one of the Western Superintendents. We learn from Dr. Gundry, of the South Eastern Ohio Hospital for the Insane, that “no such effort was ever made, or attempted to be made by the Legislature or Constitutional Convention, no such proposition or project squinting in that direction, was ever broached by any one. The only thing giving any color to the idea, was a short law passed relating to persons accused of crime, against whom an indictment was pending. Then a jury is to be impanelled to try the issue of insanity independently of the issue of crime; the law affecting in no way the admission of patients to hospitals.” Dr. Gundry states, however, that an attempt was made in Ohio, to place all the benevolent reformatory and punitive institutions of the State under the control of three commissioners, elected by the people. This was made in the Constitutional Convention, and only defeated by a very small majority. The Legislature at its last session, changed the general law, for the administration of Hospitals for the Insane. All the boards of trustees of six members, are replaced by boards of three members each, who elect new officers. The Governors have appointed the boards, and the elections have taken place. The names of some of the Institutions are also changed, Northern Ohio Hospital for the Insane, Newburg, Dr. Lewis Slusser, Superintendent, Western Ohio Hospital, formerly Southern Ohio Lunatic Asylum, at Dayton, Dr. John H. Clark, Superintendent, South Eastern Ohio Hospital for Insane, at Athens, Dr. Richard Gundry, re-appointed Superintendent.



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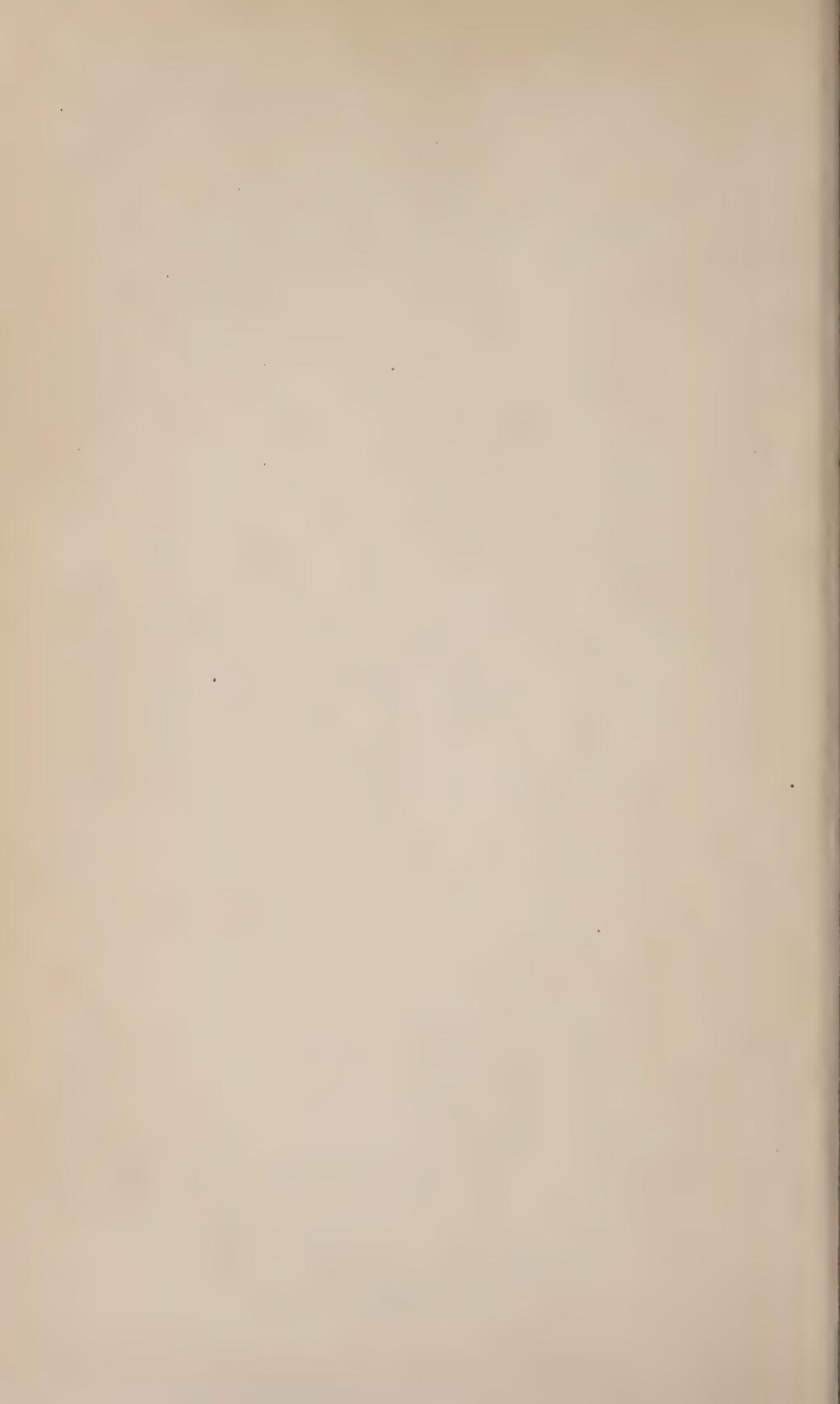
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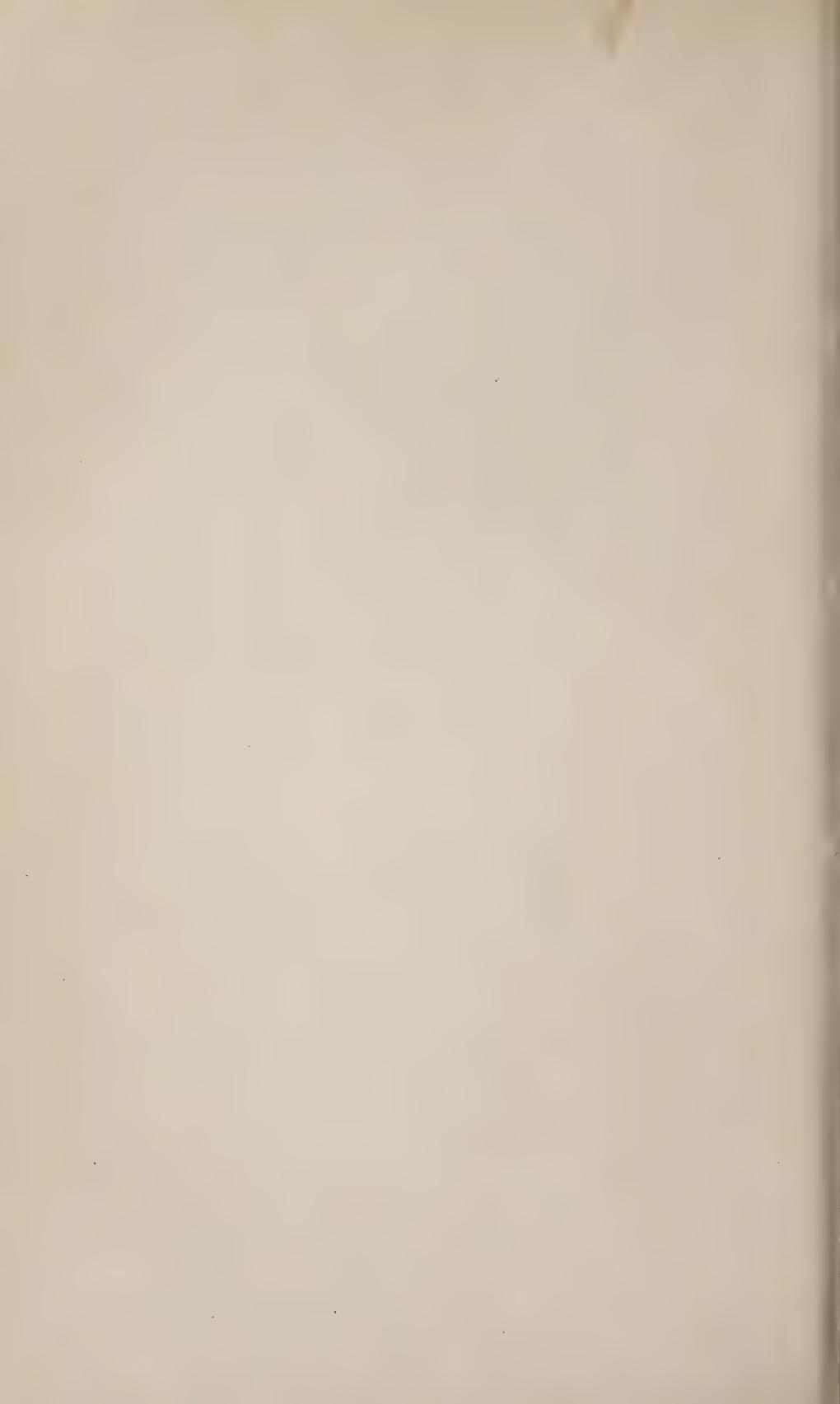


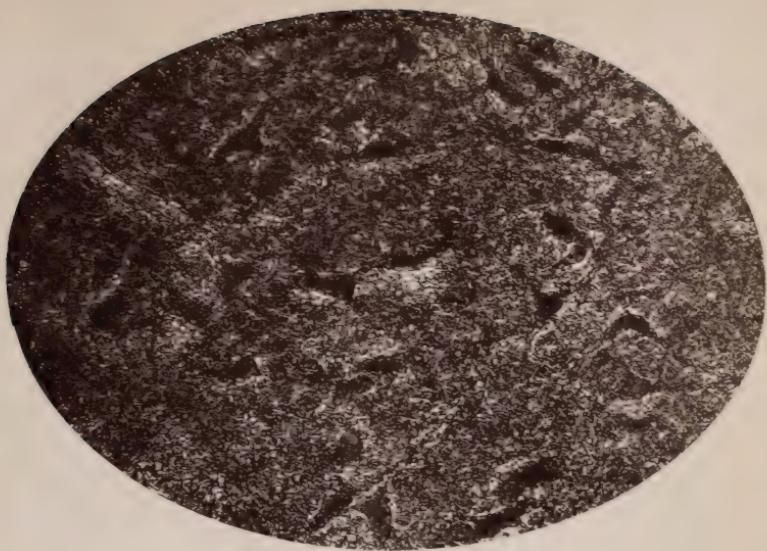


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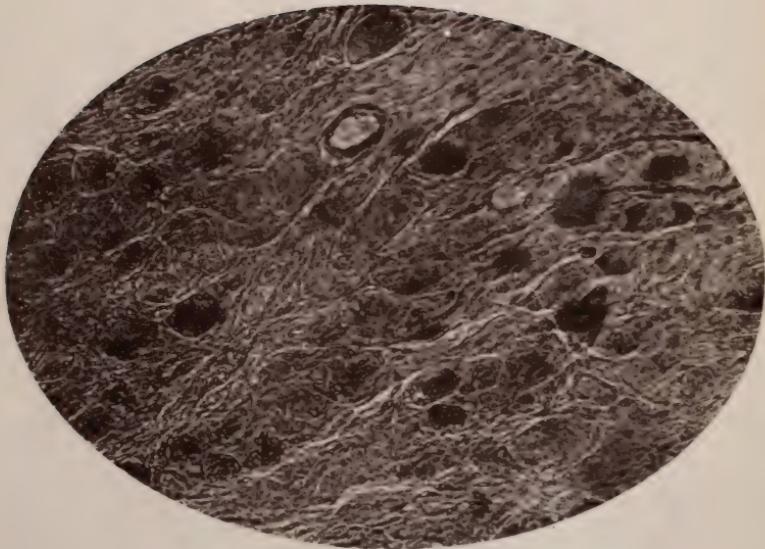


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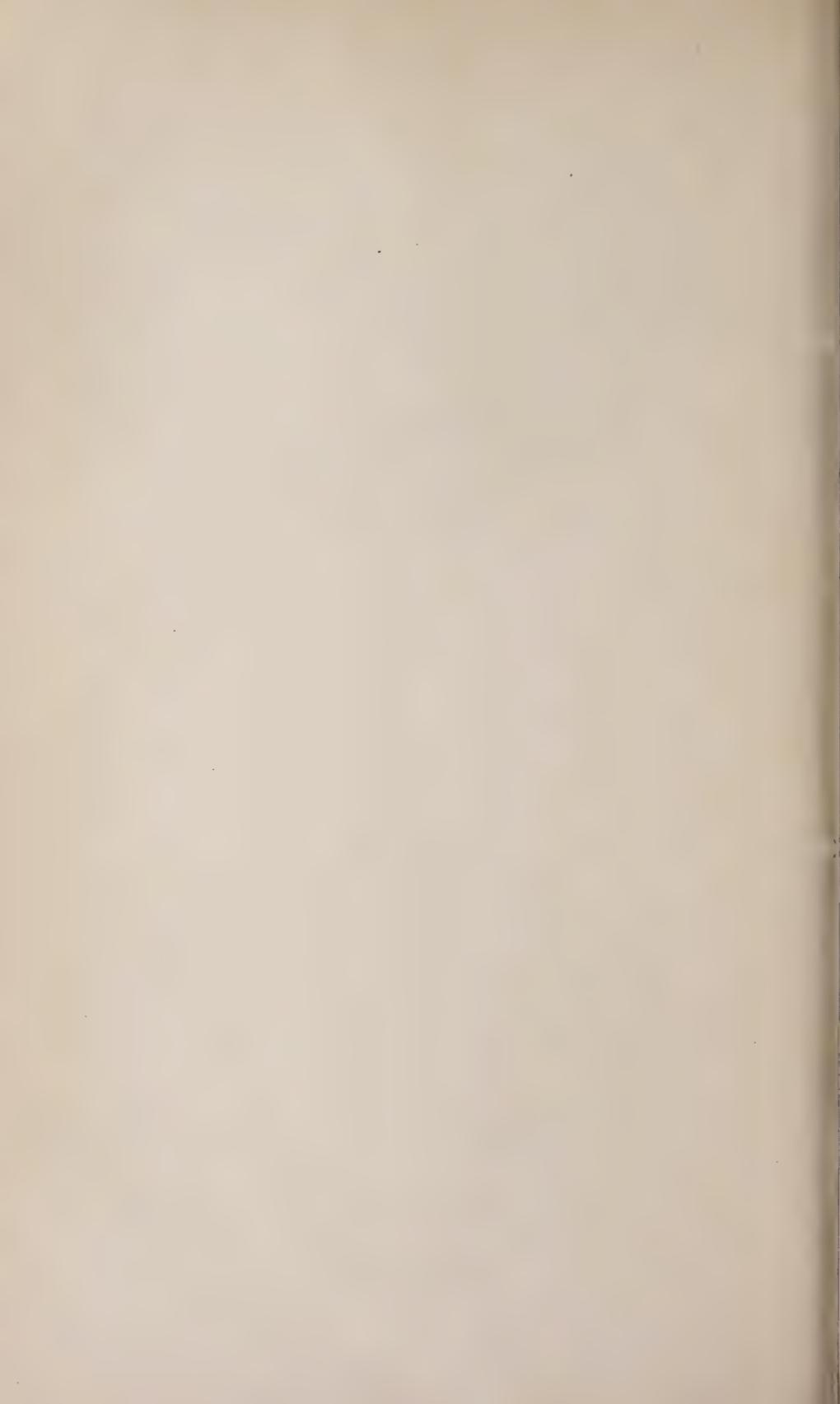


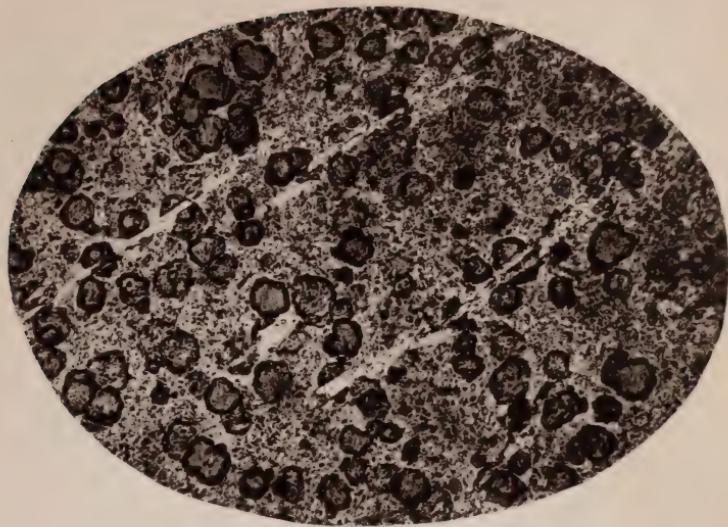


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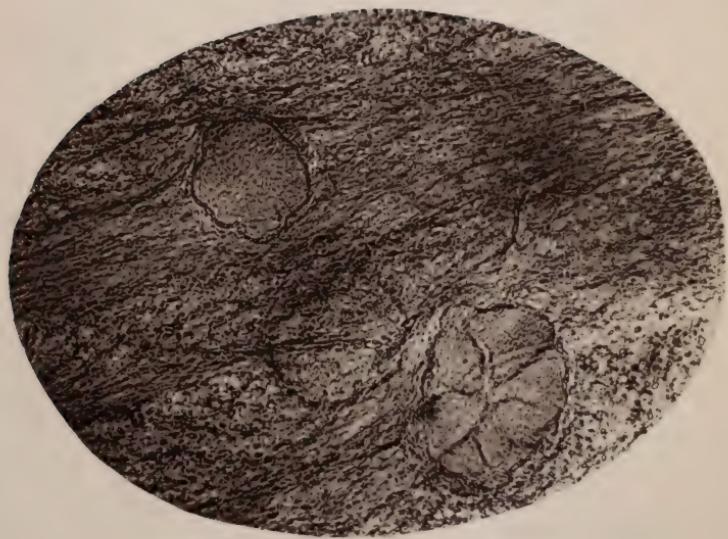


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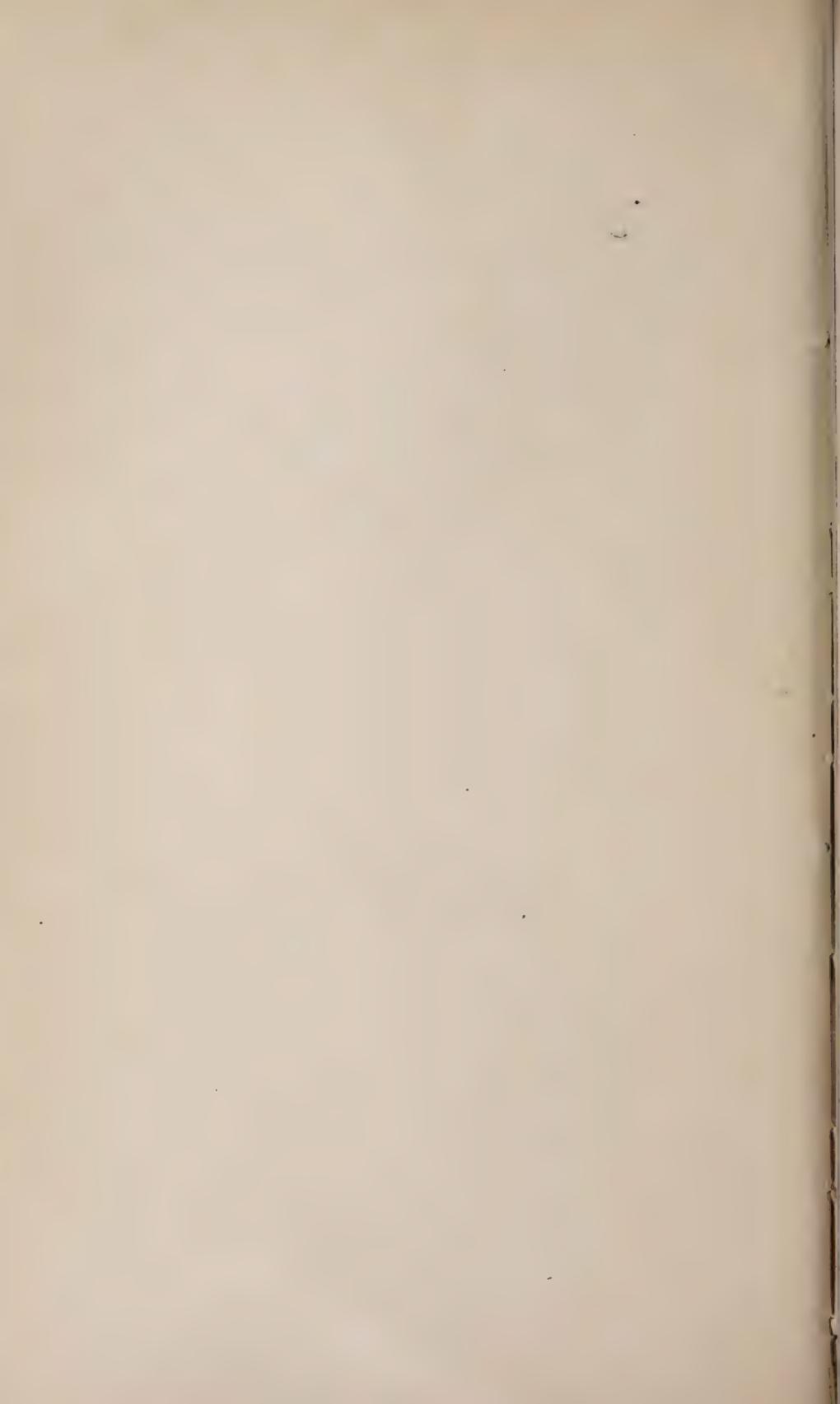




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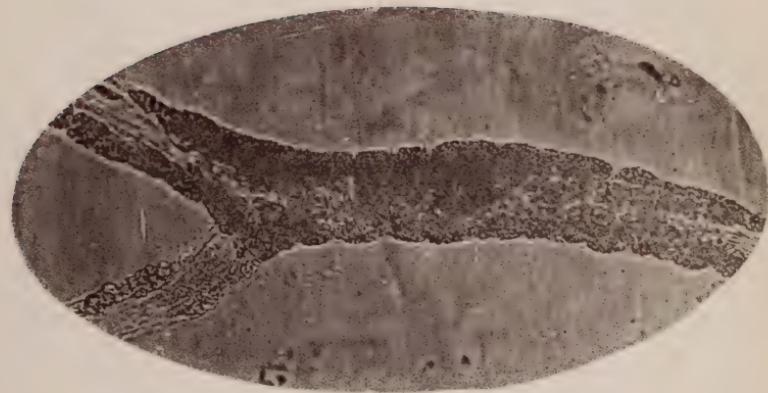


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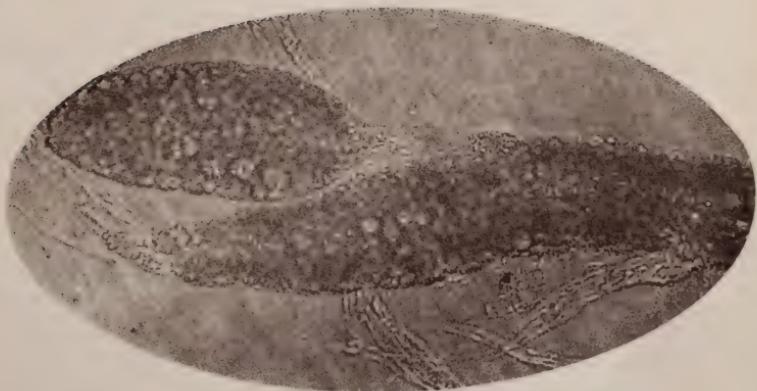




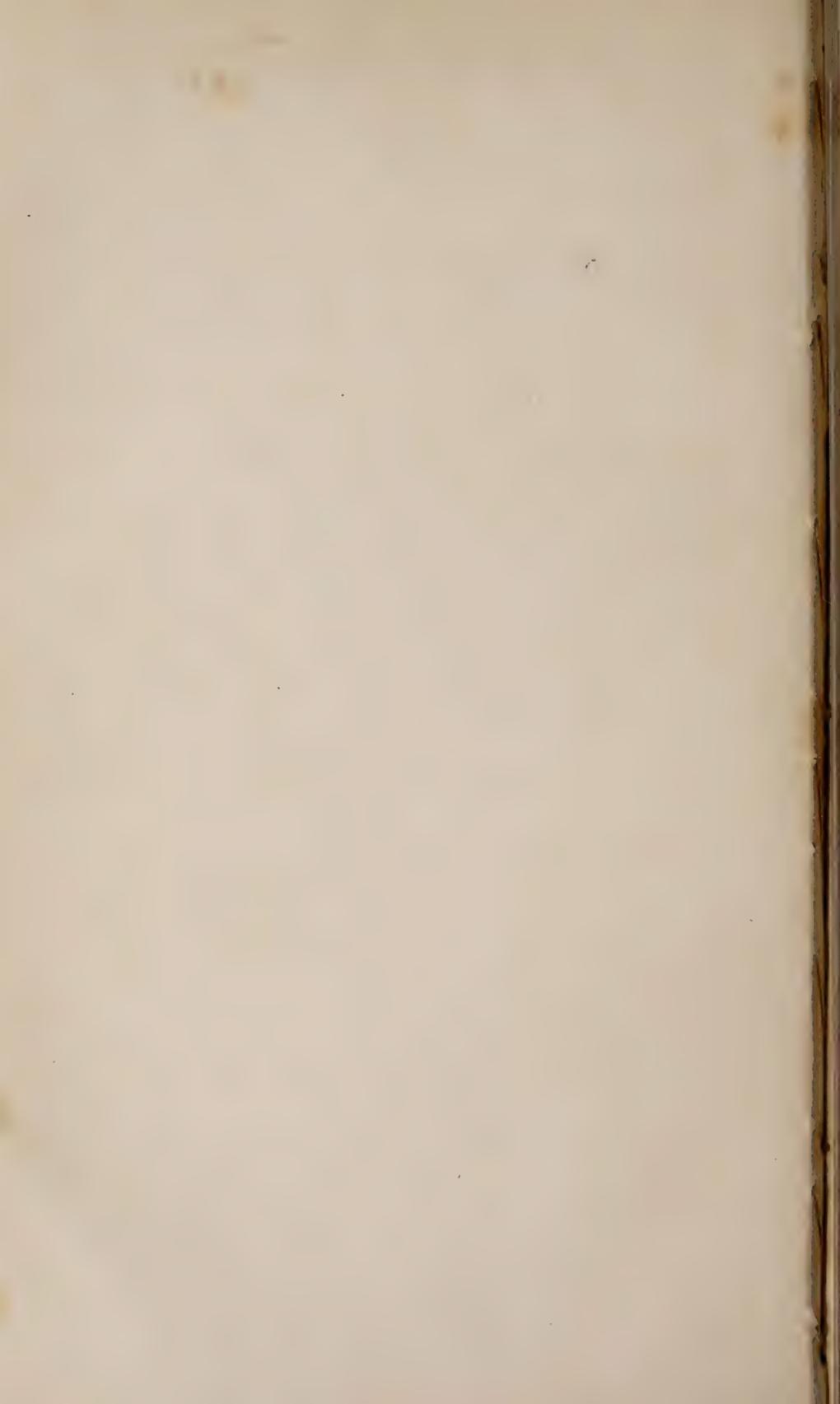
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AMERICAN
JOURNAL OF INSANITY,
FOR OCTOBER, 1874.

PROCEEDINGS OF THE ASSOCIATION OF
MEDICAL SUPERINTENDENTS.

The Twenty-Eighth annual meeting of the Association was called to order at 10 1-2 A. M., of May 19, 1874, by the Vice-President, Dr. C. A. Walker.

The minutes of the last meeting were read.

The following members were present during the sessions of the Association.

Dr. Judson B. Andrews, Assistant Physician of the State Lunatic Asylum, Utica, N. Y.

Dr. H. M. Bassett, Iowa Hospital for the Insane, Mt. Pleasant, Ia.

Dr. J. E. Bowers, Assistant Physician of Hospital for the Insane, St. Peter, Minn.

Dr. Geo. Syng Bryant, First Kentucky Lunatic Asylum, Lexington, Ky.

Dr. R. G. Cabell, Jr., Assistant Physician, Central Lunatic Asylum, Richmond, Va.

Dr. John H. Callender, Hospital for the Insane, Nashville, Tenn.

Dr. T. B. Camden, West Virginia Hospital for the Insane, Weston, West Virginia.

Dr. H. T. Carriel, State Hospital for the Insane, Jacksonville, Ill.

Dr. Wm. M. Compton, State Lunatic Asylum, Jackson, Miss.

Dr. John Curwen, Pennsylvania State Lunatic Hospital, Harrisburg, Penn.

Dr. B. D. Eastman, Worcester Lunatic Hospital, Worcester, Mass.

Dr. Orpheus Everts, Indiana Hospital for the Insane, Indianapolis, Ind.

Dr. Edward C. Fisher, Assistant Physician, Western Lunatic Asylum, Staunton, Va.

Dr. C. C. Forbes, Central Kentucky Lunatic Asylum, Anchorage, Ky.

Dr. J. J. Fuller, Assistant Physician, Insane Asylum, Raleigh, N. C.

Dr. Thomas F. Green, Georgia State Lunatic Asylum, Milledgeville, Ga.

Dr. C. H. Hughes, St. Louis, Mo.

Dr. George F. Jelly, McLean Asylum, Somerville, Mass.

Dr. Wm. P. Jones, Nashville, Tenn.

Dr. E. A. Kilbourne, Hospital for the Insane, Elgin, Ill.

Dr. Stephen Lett, Assistant Physician, Asylum for the Insane, London, Ontario, Canada.

Dr. Wm. L. Peck, Cincinnati Sanitarium, College Hill, Hamilton Co., Ohio.

Dr. Mark Ranney, Hospital for the Insane, Madison, Wis.

Dr. A. Reynolds, Iowa Hospital for the Insane, Independence, Iowa.

Dr. James Rodman, Second Kentucky Lunatic Asylum, Hopkinsville, Ky.

Dr. Abram Marvin Shew, General Hospital for the Insane, Middletown, Conn.

Dr. Lewis Slusser, Northern Ohio Hospital for the Insane, Newburgh, Ohio.

Dr. T. R. H. Smith, State Lunatic Asylum, No. 1. Fulton, Mo.

Dr. Charles F. Stewart, Nebraska Hospital for the Insane, Lincoln, Neb.

Dr. Charles W. Stevens, St. Louis, Mo.

Dr. Clement A. Walker, Boston Lunatic Hospital, Boston, Mass.

Dr. D. R. Wallace, Texas Lunatic Asylum, Austin, Texas.

Dr. J. T. Webb, Longview Asylum, Carthage, Ohio.

Dr. James W. Wilkie, State Lunatic Asylum for Insane Criminals, Auburn, N. Y.

Dr. J. H. Worthington, Friend's Asylum for the Insane, Philadelphia, Penn.

Dr. WALKER said: Gentlemen of the Association, unfortunately for you, and to none a matter of regret more than myself, it fails to me to call the Association to business for this session. Our beloved President, Dr. Nichols, a week ago had made all his

arrangements to be present, and to preside over your deliberations, but some unforeseen circumstances have interfered to prevent.

I am glad to see so large an assembly at such an unwonted distance from what we have considered the center of our territory. I know there are many here who must have made a strong effort to be present at this meeting of the Association. We shall miss, at this meeting, faces that we have been accustomed to see at almost every session since the formation of the Association. Dr. Kirkbride, Dr. Ray, Dr. Butler and others, the Nestors of our specialty are absent, and we shall miss not only their genial presence, but their counsels and their aid. But I trust with the arrangements that have been made by Drs. Callender and Jones, for our comfort and convenience here, we shall have not only an acceptable but a pleasant and profitable meeting. It seems to me under all the circumstances of the case, it is something more than good luck and chance that have enabled so large an assembly to be present in this room this morning; that a direct providence is seen in it, and I doubt not that we all acknowledge it in our hearts. With your permission, gentlemen, I propose that we ask the blessing of Almighty God upon our meeting at this time.

Prayer was then offered by Dr. Wm. P. Jones. On motion of Dr. Curwen, it was resolved that Dr. Wallis, of the Lunatic Asylum of the county of Durham, England, Dr. Boyd of the new Hospital for the Insane of East Tennessee, Dr. Brannock, of the new Hospital for the Insane of West Tennessee, and the medical profession of the city of Nashville, be invited to take seats with the Association.

Dr. CALLENDER. Before the Association proceeds to business, allow me to introduce to this body the President of the Board of Trustees of the Tennessee Hospital for the Insane, who will extend to you a welcome to our city.

The **PRESIDENT.** Doctor, we are happy to welcome you.

Dr. ATCHISON. Mr. President and Gentlemen: In the name and in behalf of my colleagues and fellow-citizens, I bid you welcome to Tennessee and her beautiful capital. In the selection of our State and city for the meeting of an Association of life-workers in the cause of science and humanity, we feel that we have been honored; but, before we part, I trust that Tennessee will have proven

herself not wholly unworthy of this high compliment, for we can point you with some degree of pardonable pride to one Institution which will compare favorably with the best, and to munificent provisions for the erection of two others, one already located on a site of unrivaled beauty in the eastern, and the other soon to be located in the western division of the State.

To your labors and organization the world owes a debt of gratitude above all computation; because of all labors in the field of reform, yours have been exercised with grandest triumphs. You have transferred dungeons into airy castles, gloomy prisons yards into smiling lawns, the horrid clanking of chains into the soft and soothing strains of music, the wild, despairing cry of the maniac into song and shout and laughter. You have thus realized the dream of the poet, you have found that "sweet oblivious antidote to raze out the written troubles of the brain," charity.

Then, gentlemen, all honor to the Association of Medical Superintendents of American Institutions for the Insane. We welcome you to our hearts, to our homes and to our altars. (Applause.)

On motion of Dr. Curwen, the President, was requested to appoint the usual standing committees.

The President announced as the Committee on Business, Drs. Callender, Jones and Curwen.

A recess of twenty minutes was then taken to enable the Committee on Business to arrange the business of the Association.

On re-assembling, the Committee reported through the Secretary, that they would recommend that the session of this morning and afternoon be devoted to the reading and discussion of papers; that the Association spend this evening from 8 p. m. to 12 p. m. socially, at the residence of Dr. T. A. Atchison, President of the Board of Trustees of the Hospital.

On Wednesday, May 20th, that the morning session be devoted to the reading and discussion of papers. At 3 p. m. the Governor will receive the Association at the Executive rooms, and the members will be shown

through the Capitol, and at 5 p. m. the members will be received by Mrs. J. K. Polk at her residence. Business meeting at 8 p. m.

On Thursday, May 21, morning session to be devoted to business. From 12 o'clock the Association will visit the Hospital for the Insane. The Committee will report more fully at a future meeting.

The report was accepted.

The Secretary read letters from Drs. R. S. and W. F. Steuart, Draper, Stribling and Stearns, and made statements relative to the absence of Drs. Kirkbride, Reed, Schultz, Buttolph, D. T. Brown, Earle and Barstow.

The President also stated the reasons for the absence of Drs. Ray, Tyler, Butler, Choate, Sawyer and Bancroft. The Secretary reported that he had, in accordance with the resolution of the Association, opened a correspondence with Prof. Henry of the Smithsonian Institute, in regard to the interchange of reports with foreign hospitals, but found that each member could send his own reports directly, to better advantage, and to aid members in that, he had prepared a list of the public Institutions in Great Britain, and forwarded it to each member. The private Institutions, conducted by some of the most eminent members of the specialty, were not given, for the reason that all could not be furnished, and it was not desirable to draw any invidious distinctions. The Secretary could give the names and address of any who might be desired. No list could be obtained of the Institutions on the continent.

The Secretary also stated that he had received a communication relative to the appointment of a delegate to, and the reception of a delegate from, the American Social Science Association, and had replied that for this year the time of meeting of the Association was such that no interchange of delegates could be made.

The Secretary then read a biographical sketch of Dr. Wm. H. Rockwell, prepared by Dr. Jas. Draper.

Dr. Wm. H. Rockwell, late Superintendent of the Vermont Asylum for the Insane, died at that Institution on the 30th day of November, ult., after a protracted illness of eighteen months. He was at the time of his resignation in August, 1872, the oldest Superintendent of an Asylum in the United States, having received his appointment on the 28th of June, 1836, and been in active service for more than thirty-six years.

He was a native of East Windsor, Ct., and born February 15th, 1800. He graduated at Yale College in 1824, and at the Medical Department of the same Institution in 1831. In 1827, and while a student of Dr. Hubbard, of Pomfret, Ct., he received the appointment of assistant to Dr. Todd, at the Hartford Retreat. He remained connected with the Retreat most of the time until his appointment to the Vermont Asylum.

During the illness of Dr. Todd, and after his death, he had charge of the Retreat until the appointment of Dr. Fuller, and wrote the report for the year 1834.

He was married June 25, 1835, to Mrs. Maria I. Chapin, at Coventry, Connecticut. They had three children, a daughter and two sons. The youngest, Captain Charles I. Rockwell, graduated at West Point in 1863, and died in Washington, D. C., of typho-malarial fever in 1867. The elder, Dr. W. H. Rockwell, Jr., was associated with his father, in the Asylum, as his assistant for ten years, and was elected his successor in 1872, but resigned that position at the end of the year.

Dr. Rockwell was an early member of the Association. He was prevented from attending the organization, by reason of a bill, at that time, pending legislative action in his own state, which exacted his attention in behalf of the interests of the insane who might be committed to his care.

In examining the proceedings of the Association, we find he attended the second meeting, held at Washington, the third, at New York, the fourth, at Utica, the fifth and tenth at Boston, the twelfth at New York, the thirteenth at Quebec, the fifteenth at Philadelphia, the sixteenth at Providence, and the twenty-fourth at Hartford, in all ten of the meetings.

At the second meeting he was appointed to report upon "the comparative value of the different kinds of manual labor for patients, and the best means of employment in winter."

At the following meeting he presented a report upon the subject assigned him at the previous meeting, but it was not published in the proceedings, which were but briefly recorded that year; hence its exact purport is probably lost, as all the Doctor's papers of this kind were destroyed in 1862 by the fire, which consumed the center and west wing of the Asylum of which he had charge.

At the meeting in Boston, in 1850, he read a paper "on the diet and dietetic regulations for the insane," which, like the one just referred to failed to be preserved. It was at this meeting also that he made his, perhaps still remembered remarks upon the organization of hospitals, strongly disapproving of the appointment of Stewards, having in remembrance a chapter of his Hartford experience, which has perhaps been very nearly repeated, in the experience of a younger and more recent member of the Association. He was likewise opposed to the appointment of consulting physicians, but thought there should be such harmony between the superintendents and neighboring physicians, that their aid might be rendered whenever required.

At the meeting in 1855 he served on the committee of nominations, at that of 1857, in the discussion of the "medical treatment of insanity," he disclaimed the use of Tartarized Antimony and venesection, (both of which were in use when he entered the specialty,) and had no belief in the remedial influence of either. He had given Tartarized Antimony in cases where he had expected to derive much benefit from small doses, and found that it lessened arterial excitement, but did not diminish the nervous irritability. He thought Conium had a great effect upon the mucous membranes and liver. In cases where he had given it for a length of time he had witnessed a marked influence upon the glandular secretions.

In reference to the "proper care of the violent insane," he expressed a decided preference for seclusion, rather than the constant watching of an attendant whose patience might eventually wear out.

In 1858, he read a paper at the meeting in Quebec, "on the general characters of epilepsy in insanity," which was reported mainly in the proceedings. At the meeting in 1860, in the discussion of the paper of Doctor Jarvis, "on the proper functions of private institutions or homes for the insane," he expressed his conviction that public institutions had the advantage of affording classifications, by which patients might be of mutual benefit to each other, by engaging in common amusements or occupations, with which their minds might be kept active and allowed less opportunity for day dreaming.

At the sixteenth meeting at Providence, in the absence of the President, Doctor McFarland, he was chosen President *pro tem.*

Regarding the question of "mechanical employment for the insane," he expressed himself on the general subject of labor to the effect, "that useful employment was one of the most important of remedial agents, but that great prudence, care and discrimination, were required in carrying it out successfully; some lacked physical health, others were too much excited to admit of being employed, and others would work to their injury; but if conducted with the same prudence and care with which medicine was administered, he considered it one of the most important of curative agencies."

The last meeting he attended, was in 1870, at Hartford, the theater of his professional beginnings and initiation into the specialty, and while attending this meeting he paid his last visit to his birthplace, and the scenes of his boyhood, a few miles distant from Hartford.

We have followed thus closely his attendance upon the meetings of the Association, for the sole reason that at these meetings, his views on the practical questions of the specialty, were publicly expressed.

He wrote but little, his annual reports were noted for brevity, and confined mainly to the results of each year. His was a practical life, he indulged little in theorizing, but was wont to detail his actual observations, and to those associated with him he gave freely of his professional and practical experiences.

Few men possessed such qualifications for surmounting difficulties as he, and the history of the Institution at Brattleboro, gives tangible evidence of his indefatigable energy. He was pre-eminently self-reliant, and though he differed from some of his colleagues in the matter of policy in practical management, he was scrupulously faithful to his convictions, and to his trusts.

These points will be fully shown in the forthcoming report of the Institution, and need not be enlarged upon here.

For the year and a half preceding his death he was confined to his bed, suffering much from his fractured limb, gradually wearing away, and sinking to his final rest; and then it was that the strong points of his character shone out with the most striking brilliancy. Realizing that his work was done, and that he had done it faithfully, he expressed his willingness to be judged by it: undisturbed by the shafts of malice and indiscriminate censure, he calmly observed, "that his work would be better appreciated, and his motives be better understood after he had gone."

And so he passed away; dying as he had lived, strong in the faith of his life-long convictions, and relying with unshaken confidence upon the Divine justice which metes out to every man the full measure of his deserts.

On motion of Dr. Green, it was resolved that a committee be appointed to prepare a resolution expressive of the sense of the Association of the valued services and great loss of Dr. Rockwell.

The President appointed Dr. Green on said committee.

The PRESIDENT. It has been customary to call upon individual members for reports as to progress in the care of insane, erection of new buildings and the selection of new and better sites for such purposes. In the absence of any other business, it seems to me proper that that should be taken up, and members called upon to report as to their several sections.

Dr. HUGHES. Would it also be in order to report progress backward? I would of course like to hear of progress forward everywhere, but what I shall have to say will be in regard to retrogression or backward progress.

The PRESIDENT. I doubt whether progress backward would be in order in this Association.

Dr. EASTMAN. There has been in Massachusetts during the past year, some progress in the work of caring for the insane. The Legislature provided at its last session for the erection of a fourth State Hospital, and a commission was appointed to select a site and prepare plans. The site agreed upon is in the town of Danvers, a few miles from Salem. The plan has been approved, and the work of building will soon be commenced.

At the third or Northampton Hospital, the system of general improvements initiated by the present Superintendent, Dr. Earle, has been diligently prosecuted, and the Institution is now in most excellent condition.

The Legislature during the last year made appropriations for additional wings and general improvements at the second or Taunton Hospital, which, when completed, will increase its convenient capacity to four hundred, and greatly improve its facilities for classification. By the close of the present building season, these improvements will have been nearly completed.

At the last meeting of the Association, it was reported that work was about commencing on the site of the new buildings for the Worcester Hospital. The grading was nearly finished, and a portion of the foundation laid last season, and we are now beginning the erection of the superstructure. The old buildings and site are to be abandoned when the new are completed.

During the winter the usual annual discussion relative to suitable provision for the convict insane has been had, but no definite action has been taken thereupon as yet. It is hoped that with the erection of the State's Prison there will be connected with it a department for insane convicts. Whether the so-called criminal insane and those, who arraigned for crime, require observation to test their sanity, will be sent to this department, is not yet decided. In relation to the subject of legislation we have had a little experience with Mrs. Packard. She is still with us, buttonholing legislators, and pressing her bill. After her appearance before the legislative committee on public charitable institutions, it was evident they were satisfied, that her statements were entitled to receive little attention, and also with the unsoundness of the views of those who appeared in her behalf. It is true, however, that this committee, probably from motives of policy, reported to the legislature that it would be expedient to increase to a limited extent, the authority of the Board of State Charities, and directed superintendents to allow patients to write, free from any supervision, to this Board.

Dr. SHEW. During the past year, Connecticut has completed the Hospital at Middletown, and the work which she began eight years ago. The Institution is now in condition to accommodate four hundred and fifty patients. We had last week when I left home, four hundred and ten. Perhaps Connecticut is as well prepared to provide for the insane to-day, as any State in the Union. With the Retreat at Hartford, having ample, commodious and well-furnished apartments for private patients, those who desire and are willing to pay large prices for good accommodations, and the State Institution at Middletown, with accommodations for four hundred and fifty patients, we provide for nearly all the insane in Connecticut.

Circulars were issued the first of January to all judicial officials, town physicians and judges of probate, stating that patients could be received without previous notice; and from the returns made at that time, and other sources of information, we know that the insane have been provided for. There are, perhaps,

not fifty insane persons in the alms-houses of Connecticut to-day. This is decided progress, as you are aware, from the position that Connecticut was in eight years ago. I believe at some of the former meetings, not further back than 1864 or 1865, when the question of providing for the insane, practically the chronic insane in alms-houses, was under consideration, it was stated that Connecticut would not provide hospitals for that class. I have found in carrying on the work there, that the people are not only willing, but anxious to do their duty, and their whole duty in this respect. In 1870-71, the Legislature authorized the Governor of Connecticut to send patients out of his State, wherever they could be provided for elsewhere, until the State Institution could be completed, and as the result of that legislation, Vermont, New Hampshire, Massachusetts and Rhode Island, contributed hospital accommodations for our insane. I think something like one hundred and thirty patients were treated in those Institutions from Connecticut. I only mention this to show that they were thoroughly aroused to the necessity of hospital treatment, and that they were willing to do all in their power to prevent any increase in the number of the chronic insane. It would be easy, at the present time, to secure large appropriations for another institution. Already some of our prominent men have discussed the question of beginning at an early day in order that it may be completed before the actual pressure comes upon us.

Dr. WILKIE. (New York.) I can only report in regard to our own Institution. When I left home, we had ninety-two criminal patients, seven women, and eighty-five men. Our capacity in the male wards, is but forty-eight, but we hope soon to be able to open our new building, probably in the course of two months, which will give us room for eighty additional patients. At present, we desire, as far as possible, to keep down our numbers and transfer patients to counties from which they came, upon expiration of sentence, when we can certify that they are harmless.

The PRESIDENT. Will the Doctor be kind enough to state precisely what class of patients are taken into his Institution?

Dr. WILKIE. We receive the insane convicts from the three State Prisons, and the Penitentiaries of the State; also persons charged with murder or arson, or attempts at murder and highway robbery and unconvicted. We also receive into the Institution, persons of insufficient mental capacity to control themselves, charged with the aforesaid crimes. Consequently we have with us, one blind boy and one mute, who are not insane.

Dr. CURWEN. I can report in part for the State of New Jersey. They are pushing forward the extensive improvements at Morristown as rapidly as possible, and hope to have the Institution there in condition to receive patients before long.

In relation to Pennsylvania, you will recollect, that, at the last meeting of the Association, I stated that a bill had passed the Legislature, making provision for a hospital for the ten northwestern counties of the State. Shortly after the adjournment of the Association, the commission authorized, was appointed by the Governor, and during the month of September, it visited the different counties in the section of the State named in the bill, and after seeing all the places which met the requirements of the act of Assembly, selected a site near the town of Warren. The location is, in all respects, an excellent one. The town of Warren has about 4,000 inhabitants, and is one of the oldest, as well as handsomest, towns in that part of the commonwealth, having been laid out as early as 1795. The town is on the line of the Philadelphia and Erie Railroad, and the farm is two miles north from it. The Act of Assembly required the selection of a farm of not less than two hundred and fifty acres of good, arable land. The commission secured three hundred and thirty-four acres, of which about three hundred acres are as good land as need be required. The farm fronts on the Conewango river, a stream abundantly large for every purpose of the Hospital, being the outlet not only of Chautauqua lake, but of two or three other bodies of water. The farm house on the premises was built originally by a Scotch gentleman, who improved the land by landscape gardening, after designs of a similar character in his native country. While engaged in these improvements, he laid out a broad avenue from the public entrance, with a row of alternately evergreen and deciduous trees on either side, which now have a growth of thirty years, and form a complete arch of nearly eight hundred feet in length. The ground, if it had been leveled for the purpose, could hardly have been more desirable. For a distance of two thousand feet on the north and south line, there is a variation of a few inches over three feet between the extremes, and the same may be said of the east and west line. Although the view is not very extensive, it is one of those quiet views which pleases every one who sees it.

The commission expect to commence work immediately, and push it forward rapidly. The members of the Association will receive invitations to attend the laying of the corner stone in the coming fall.

At Danville, the foundations for the two additional wings for the male department have been laid. They are now pushing forward the superstructure, hoping to have it entirely under roof before cold weather.

The improvements in Philadelphia on the Pennsylvania Hospital for the Insane, under Dr. Kirkbride, are of a marked character. The new addition to the north wing of the female department, the Fisher ward, is a model of great beauty and convenience. Gentlemen who will visit and examine it, will be able to carry away some ideas which will benefit their own Institutions.

The members of the Association all know of the discussion which has been going on in Pennsylvania in relation to the care of insane convicts. At the last session of the Legislature, a bill was passed through both branches directing that whenever any one in the penitentiaries or jails was thought to be insane, the warden, physician or inspector of the penitentiary, or the general agent of the Board of Public Charities should make application to the court to have said person examined as to his insanity. The court will then appoint a commission of three, one of whom must be a physician, to inquire into the facts, and if they report that such person is insane, and a proper person for treatment, the court is authorized to send him to the nearest State Hospital.

Another bill was also passed through the Legislature creating a commission to inquire into the condition of insane criminals in the penitentiaries in Pennsylvania, and if they report in favor of a separate Institution for that class, to select a location and report the plan and expense of a building.

Dr. STEVENS. A few words in regard to the progress in Missouri, and a few words probably in regard to defection. We are making some progress, and the State is building an Asylum at St. Joseph. Our Asylums are now overcrowded, and the only relief is in poor houses and other similar Institutions. The new Asylum will probably be completed the coming season, but the completion will be influenced by the amount of money appropriated. I might here state how Buchanan county appropriated \$15,000 for the purpose, and how it was buried deep in the pockets of a lawyer never to be resurrected, but I will not. I will say, however, that we are making progress in the way of building, and shall soon have accommodations for the great majority of the insane. This building will be up to the times in regard to its arrangements. In regard to the State Asylum, Dr. Smith will give you some of the details. Under his supervision, the Institution is now fully up to the ex-

pectations of the public, and I think his course meets their general approval. In regard to that Institution, for years past, I have to say from my knowledge of its management, that it has not deserved the opprobrium which has been cast upon it. I was a member of the Board of Managers of the Institution for several years, and know all about it. Many have an idea that there has been a great deal of bad management and abuse of patients. I wish to correct any misapprehension that may exist as to abuse of patients. That there has been bad management, I know, and here there is progress backwards. Our Board of Managers has contained men who were solely politicians. Political intriguing, and political maneuvering has been the curse and bane of many of the western Institutions, and perhaps of some of the eastern. That has been the case in Missouri, not only in regard to the interests of the State Asylum, but of the one at St. Louis. The least probably said now about the latter, the better, as I intend to offer resolutions in relation to its present condition before the close of the session. I would like to hear from Dr. Hughes and Dr. Smith.

Dr. RANNEY. I would like to ask Dr. Stevens upon what plan the Institution at St. Joseph has been constructed? It has been told me that the plan was made by the same architect that prepared the plan for the Institution in southern Illinois, which it seems to me, contains more objectionable features than any Institution with which I am acquainted.

Dr. STEVENS. I am not able to give the details of the plans upon which it has been constructed. I know the ability of the architect, Mr. Walsh, in regard to dwellings, hotels, &c., and supposed, from his excellent reputation, that he was well and thoroughly informed. I am not aware of defects. I am sorry if it is so, for I have a high opinion of the ability of the architect.

Dr. SMITH. I understand that he is the same architect as the man who had the erection of the Institution in Southern Illinois.

Dr. HUGHES. Has not the Institution very long halls?

Dr. SMITH. I was informed by the Superintendent of the Northern Institution that the halls are 250 feet long, and were constructed originally without even a bay window, with no light except that through the dormitories.

Dr. KILBOURNE. I understand that the same architect who built the one in Southern Illinois is building the Institution in Missouri.

Dr. CARRIEL. I visited this Institution at Anna, and was told by Ex-Governor Dougherty, who was on the building commission

at the time the plan was adopted, that it was modeled after the institution at Danville, Penn. I will further say that the Institution consists of two wards on the same floor, each side of the center; that is, there is a wing going off from the center building which I believe is 265 feet long. Then there is a transverse wing running at right angles with this wing. I do not know how long it is. The building is four stories high and has a French roof.

The PRESIDENT. Four stories including the French roof?

Dr. CARRIEL. Including the French roof. The foundation of the center building is laid, and the rear center buildings, including boiler house, wash house, ironing and store rooms, kitchen, sleeping apartments for domestics, carpenter shop, &c., are completed. I should think these buildings are very well constructed and arranged very well for convenience.

As to the Institution at Jacksonville they are not doing anything in the way of enlarging it. We are making some repairs and improvements, and have about 475 patients.

The Institution at Anna has been open for patients since about the first of January. I think they have a capacity for about 200 patients. The building on one side of the center is completed.

Dr. HUGHES. What is the capacity of each hall?

Dr. CARRIEL. I do not remember. As gentlemen seem to have an impression that this hall is very long, I would say that it is divided by a glass partition, and a wire screen on each side of this partition, so that they really make two wards of it.

In the State of Illinois, I suppose there are 3000 insane persons to-day; and when the Institutions at Elgin and Anna are completed there will be accommodations for not over one half of the insane of the State.

The subject was agitated somewhat in the Legislature last winter, and I think in another winter there will come up for consideration the establishment of another institution. Dr. Kilbourne can speak further of the Institution at Elgin, and whether it is nearly completed.

Dr. KILBOURNE. I have but a word to offer. Our Institution at Elgin is nearing completion. We entered the institution and occupied the north wing two years ago, and have since entertained but 190 patients. A year ago last winter we were enabled to get an appropriation of \$319,000 from the State for the completion of the building, and ground was broken a year ago the first day of July. Last week we moved into the center building which has all been accepted by our Board. The wing will undoubtedly be com-

pleted by September next, but owing to some reluctance on the part of our Legislature, they did not give an appropriation last winter, which will prevent us filling it with patients and occupying it, so that we shall block the wing off from that time until we can secure the funds.

I wish to speak upon one point which I think of considerable importance in connection with the selection of sites for Insane Asylums, inasmuch as by sad experience of our own, (or it would have been such, if we had not been located near a river,) we have learned the importance of locating an Institution of that kind near a living stream of water. We have a spring that the citizens of Elgin paid \$3,000 for, and it furnishes 80,000 gallons of water, and was thought to be of ample capacity to give a sufficient supply, but in the winter or spring of 1870 it began to show signs of falling off. At the time of opening the Institution it had fallen away until it was hardly capable of giving enough water to run its boilers. It was located in gravelly soil, and took another channel. Fortunately, however, we were upon the bank of a very beautiful river, only some seven hundred yards distant, and we agreed to construct a reservoir. We now have a very liberal supply of water, and our place is well provided for in that respect, seemingly, for all time. Were it not for that stream upon which we had not relied before, we would have been left destitute of that very important supply.

In relation to the Institution at Elgin I think we have excellent provision for the classification of patients. We have twelve wards upon each side of the center. In some other features, it might be amended to give better satisfaction, but in the main it affords very good room towards full classification.

I have not visited the Institution at Anna, and so can not speak as competently in relation to it as Dr. Carriel can; but as originally put up, and until the Board of State Charities had been there, there was a wing of 265 feet without a break in it; and no light admitted into that hall, except that which came in over each dormitory door. The patients could not find a place to look out, and hardly one to get fresh air. The Board of Charities suggested that they had better knock out a room and make a hole in the wall to let in the light and air, which they did.

A DOCTOR. Was their suggestion limited to only a single room?

Dr. KILBOURNE. I do not know, but I think there were two rooms, I think the same architect is at the head of the Institution in Missouri, and I would suggest to the doctors from that state, that they had better look well after the work.

Dr. CARRIEL. There is a room on each side of the corridor. The reason it looks so dark is, they went to work and put on close shutters, just a board shutter without any opening in it, I think that is the plan that Dr. Stevens had in his Institution at St. Louis.

Dr. STEVENS. The same.

Dr. CARRIEL. That is one reason why the corridor is so dark.

Dr. RANNEY. It is not in accordance with my feelings to criticise any particular institution, or the institutions of any particular state, but where we see so important an institution, as a hospital for the insane, costing a half million of dollars, more or less, built without much regard to the views of men of experience, if not in many particulars quite in disregard of their views, and of the principles of construction enunciated by this Association, it seems to me to be our duty to speak plainly about it. Every new hospital ought to show in its plans some improvement over existing structures, but unfortunately, too often this has not been the case.

A hospital two stories high is probably high enough, while some portions should be of only one story, and three stories is the extreme proper limit for any portion occupied by patients; but a four story building is extremely objectionable.

There are other objectionable features than those spoken of, in the plan of the hospital at Anna. The corridors are of great length, monotonous and cheerless, and the attempt to get an outlook by leaving out the wall between the corridor and a single sleeping room, is but a poor substitute for the fine sitting room, with a bay window, of some hospitals; the dining rooms are remote from the most easily accessible place for the distribution of food; the doors of entrance to sleeping rooms are so narrow as at once to attract special attention, and the windows are guarded in the style peculiar to a class of institutions devoted to very different purposes. It is so much less pleasant to criticise than to praise that I forbear to say more.

Dr. SMITH. I am gratified to state we have been making some progress in Missouri since our last meeting. The new Hospital for the Insane, located near St. Joseph, is approaching completion. The last Legislature appropriated eighty thousand dollars for finishing and furnishing the building, and it is now thought the Institution will be in readiness for patients, about the first of October next. I have not seen the building, nor examined the plan adopted by the Board, and hence can not speak definitely as to its merits. The same gentleman, Mr. Walsh, who furnished the plan and

supervised the construction of the Southern Illinois Hospital at Anna, also furnished the plan for the Asylum at St. Joseph, and if enviable success crowned his efforts there, we may confidently expect like good results at St. Joseph.

From the statements, however, of the members of this Association from Illinois, who have examined the building at Anna, we can not otherwise than infer serious defects there, and can only trust that they have been avoided in the St. Joseph Institution.

The great error, Mr. Chairman, committed in most of our western Asylums has been the failure to appoint in connection with each, a competent superintendent to determine, with a first-class architect, the best plan, and then watch its progress from the foundation to the completion of the building. What I mean by the best plan is one not only fully up with the progress of the day, but if practicable a little in advance of the best preceding it. This course would harmonize with the suggestions of this Association many years ago, and certainly is the only one to insure regular progress in our Institutions. When we remember the variety and magnitude of the interests involved in the proper construction of hospitals for the insane, how absurd to intrust all to the ordinary architects of our country, it matters not how high their standing, or how accomplished they may be.

As far as the State Lunatic Asylum, at Fulton, is concerned, it gives me pleasure to add that we have made, in some particulars important progress during the past year. The Legislature in 1873, made a liberal appropriation for improving our sewerage and ventilation, increasing our heating apparatus, enlarging reservoirs, erecting new buildings for outside employés, coal and straw houses, and refurnishing the Institution; all these improvements have been completed, and I can, with confidence say, the State Lunatic Asylum in many particulars is in a much better condition than at any previous period. Like most State Asylums for the insane, ours for some time past has been overcrowded; our present population is nearly, if not quite two millions, and estimating one to every thousand we have two thousand insane in Missouri. After the completion of the Hospital at St. Joseph, provision will have been made for not exceeding eleven or twelve hundred insane.

I doubt not, however, judging from the past, that Missouri will soon occupy the high and enviable position of having made provision commensurate with the urgent wants and necessities of all her unfortunates.

On motion, the Association adjourned to 3 P. M.

The Association was called to order at 3 P. M., by the Vice-President.

The Chair announced the following committees: To audit treasurer's accounts, Drs. Ranney, Everts and Green. On resolutions, &c., Drs. Shew, Jelly and Hughes. On time and place of next meeting, Drs. Kilbourne, Wilkie and Rodman.

The Association resumed the subject under discussion at the adjournment this morning.

Dr. HUGHES. Mr. President, I presume it is proper that I should say something under this head, in order not to be misunderstood in the remark which I made this morning. Missouri has not been altogether non-progressive, she has made some progress, but in my opinion, not so much as she should. I think the Association will come to the same conclusion before I get through, that she has not made that progress which humanitarianism demands, in regard to the management and treatment of our insane.

During the time that I had the honor to preside over the destinies of the Missouri State Lunatic Asylum, some considerable progress was made. If I told you that there was a time, in the history of that Institution, when all its bath rooms were not abundantly supplied with heat, and when its dining rooms were not supplied with heat, you would be somewhat surprised. During the recent administration, the Legislature, as Dr. Smith has informed you, has made some handsome appropriations for that Institution, making it as complete as an old building of twenty years standing could well be, a building which at the time it was erected was not much in advance of the times.

The remark of Dr. Kilbourne, in regard to the necessity for an abundant supply of water, is one applicable to that Institution, although I can not say in regard to the new Institution at St. Joseph. We had once upon our board a rather irreverent member who was accustomed to say that, "in the selection of a place for lunatic asylums, the river Jordan should run through the premises." I believe a fatal error is always committed unless the Institution is fixed beside a stream of living water. That trouble exists in regard to the Fulton Asylum; it has been overcome in part, by the construction of reservoirs, but it seems their supply is rather precarious.

If it be not occupying too much of the time of this Association, I would like to enter my objection to the system of appointing Boards of Managers all at once, so that their terms of office begin and expire all at the same time, thus creating the liability of having an entirely new and inexperienced Board appointed to run an institution, which requires so much experience, as you all know an insane hospital does. This is one of the defects in Missouri. The Board of Managers is appointed by the Governor, the appointment to be confirmed by the Senate. The confirmations are all made at one time.

As has been remarked, the Board of State Charities has been abolished. Whether that has been a progressive or retrogressive course I am not prepared to say. I have been accustomed to consider an enlightened Board of State Charities an advantage to a State. Missouri has not yet made any provision for her idiotic, her feeble-minded or her imbecile classes, and she has made no provision for separating the epileptics from the other insane, and she has no Inebriate Asylum. Thus you see Missouri has not progressed as a State of her age should have progressed, having began twenty years ago to provide for the care of the insane.

Now, in regard to our County Asylum, an Institution without a head, an Asylum presided over by a resident assistant physician who remains within the building, and a visiting physician who is required to visit the Institution twice a week; having charge of an Institution three miles from the city and also a private practice. Of course you will not recognize this as very enlightened progress. We do not hail from where the sun rises, and it is reasonable to believe that those from the east should have more light. With 320 insane and the number increasing, the proposition, before the Board of Managers of that Institution, is to convert the basement into a receptacle for the insane. This is progression downward, Mr. President, and it is perhaps on that account that Dr. Stevens and myself can induce you to visit St. Louis, and thus secure your influence for the insane in our midst.

Dr. SLUSSER. I expected Dr. Webb, the senior delegate, to respond to the call from my State, as he is not present I will give a report, relying upon memory for statistics. There are in Ohio six lunatic asylums, four under State authority and two controlled by the counties in which they are located. I include in the four the Central, now being rebuilt, in a new and improved location, and upon an enlarged plan. It will have when completed, accommodations for over one thousand patients. Since the last meeting of

the Association, the Southern Ohio Asylum, at Athens, has been opened and must now have enrolled four hundred patients. This building has accommodations for six hundred. The South-Western, at Dayton, has an average of 600; and the Northern, at Newburgh, with which I am connected, 250. The new rear wings now being furnished, will afford room for 150 more. The entire building will be completed in a year, when we shall have accommodations for 600.

In addition to this enumeration there must be in Longview and the North-Western Asylum, controlled by the counties in which they are located, 700 patients, making in the aggregate near 2000 now provided for. When the Central is completed, we shall have accommodations for 3000 insane people, sufficient for our present and prospective wants for some years. Our Legislature last winter enacted a new law for the government of our State Institutions. In some respects it is an improvement upon the old law. It reduces the number of the Board of Trustees from six to three. A Board may be so cumbersome as to be inefficient. Three is sufficient for all practical purposes. The new law leaves it optional with the Board and Superintendent to receive a patient who has been insane over two years, or retain one in the Hospital longer than that period. The idea is that they shall be provided for in our county infirmaries, an error which I think will in time be corrected.

I can not permit the charge upon the Legislature of my State, made by the gentleman from Missouri, to pass uncorrected. It is very true that with the change of polities in my State, there has been a change in the government of some of its institutions, but so far as the Hospitals for the Insane are concerned, there has as yet been no change. The new appointments made at Dayton and Newburgh were made by the old Board, and to supply vacancies occasioned by resignation. The change made in the Central was the result of dissatisfaction of both parties, occasioned by the delay in the rebuilding, and had no reference whatever to the acknowledged ability of Dr. Peck as a Medical Superintendent.

Dr. HUGHES. I had reference to the appointments made upon political grounds exclusively. There are often good medical experts in every State who might be retained in office without harm. I spoke of making appointments with politics as a test.

Dr. SLUSSER. I entirely agree with the gentleman, but the practice grows out of the nature of our political organization and both parties are alike guilty. I said to the Board, who were op-

posed to me in politics, that if politics was to be the test I would withdraw; and although solicited to be a candidate I would not be set up as a ten-pin with a certainty of being knocked down; but if the selection was to be made without respect to party, I would stand the test of a competitive examination with others. It may be my misfortune to get into the same category with the gentleman from Missouri, but I do not approve of dragging this matter into our organization, as it is calculated to disturb the harmony of the proceedings.

Dr. EVERETT. We have made some progress in Indiana, and it is satisfactory so far as it goes. We have but one Institution. The last Legislature was favorably disposed towards the one now in existence and toward additional facilities. The Governor recommended increased facilities, and an expenditure of \$1,000,000. The Senate passed one bill and the House another, and between the two neither became a law, but they gave \$96,000 for improvements. Within the course of the summer we have made almost a new house out of the old one, it now having a capacity for 650 patients. It is an Institution I would be pleased to invite this Association to visit at any time.

Our laws respecting the insane are entirely satisfactory, as far as they go. Of course we are almost limited to acute cases. We are compelled by law to make room for cases of less than one year's standing, when application is made for such. Our Board of Control is very properly small, numbering but three members; our work is harmonious. In the matter of politics our Board is divided, but all difficulties that have ever occurred have been from internal dissensions, and of a domestic character, among the resident officers of the Institution.

Dr. BASSETT. I do not know that I have anything of importance to report from the State of Iowa, unless it be that I refer incidentally to matters affecting the care of the insane in the way of legislation. Two years ago a bill passed our Legislature creating a Visiting Committee, consisting of three persons, and conferring upon it specific and general duties. They were empowered to visit the hospitals in their discretion, to go through the wards accompanied or not, as they should elect, by an officer, to send for persons and papers, to examine witnesses on oath, to ascertain whether any of the inmates had been improperly placed in, or were unjustly detained in the Hospitals, and whether they were humanely and kindly treated, with full power to correct any abuses found to exist. The right of unlimited and unrestricted corres-

pondence by letter was also conferred on the inmates of the Hospitals. We have now had two years of such legislation, and excepting a few modifications, scarcely lessening the evil which has abundantly developed under the practical working of the law, it still stands upon our statutes, a monument of unwise-dom.

The Hospitals have been visited regularly by this Committee at intervals of a month; a good many complaints were made and specific charges created, which underwent a thorough sifting; one case occupied nearly a week in its investigation. As new complaints are made, and as new apparent cause for investigations arise, the Committee are not slow to discharge their duty.

The law was so far changed last winter as to have the effect to lessen the amount of letter-writing heretofore carried on. The inmates of the Hospitals are now permitted to write, under seal, only to the Visiting Committee, and may only receive letters addressed to them from the Committee without inspection. All letters written to the patients, or by them, are subject to the inspection of the Superintendent, and may, in his discretion, be withheld or sent. I can do no better than refer you to the last biennial report of the Hospital at Mt. Pleasant, for an illustration of the abundant mischief which has grown out of this legislation. The law is still in force, as I have said, and we must struggle along under two years more of its working. I have desired to call your attention thus briefly to this matter, for the reason partly that Mrs. Packard, the author of our law, is not idle, and I have reason to know intends to prosecute her efforts in other States. I heard her declare it to be her intention to make this her life work.

Dr. REYNOLDS. One wing of the Hospital for the insane at Independence was opened one year ago. Seventy-five females and eighty-five males occupy the Institution. The main building is under way, and we hope it can be occupied during the coming year.

Dr. RANNEY. I need only say that the State of Wisconsin seems to be disposed to make all necessary provision for the insane, as rapidly as she can. Wisconsin is one of the new States, having at the census of 1870, a little more than a million population. She already has two Hospitals, one completed, and one about one-half completed, to be finished in the course of the next two years, when we will have Hospital accommodation for seven hundred and fifty patients. That of course will not accommodate all the insane of the State, but it will afford such accommodation that all recent cases can be received without any delay. The liberal feeling with

regard to the insane, will undoubtedly lead to the procurement of further accommodation, just as soon as the financial condition of the State will warrant. At the last session of the Legislature, last winter, \$90,000 was appropriated towards the completion of the Institution, at Oshkosh, and \$40,000 to the Institution, at Madison, to make further accommodations, chiefly in the administrative department, which will also add increased accommodation for patients.

Dr. STEWART. (Nebraska.) As you are aware, our State is the youngest in the Union, and you can not expect a report of great length. Our Institution is a small one, a small commencement you might say. The building was finished, as far as it has gone, on the eighth of last June. It has a capacity for forty patients, although we now have fifty-four crowded into it. At this time we have plenty of room to accommodate the required number of officers and employés, to conduct the Hospital when it is completed according to the plans, but as only one wing is now completed, we are very much in need of more room for the comfortable accommodation of patients.

Owing to the rapid increase in the population of our State, it can reasonably be supposed that before such time as the south wing can be erected, there will be as many as one hundred and fifty or two hundred insane patients in the State requiring treatment in the Hospital.

Our Legislature has always been very liberal, and has appropriated liberally so far as it has been asked to do so. I think in the future we will go along nicely.

As you are all aware, I presume, we have had our building destroyed by fire. It was erected in 1869 and 1870, and occupied in December of the last named year, I am informed, by persons who were employed in the Institution at the time of the fire, that three lives were lost. I was not in charge at the time, but received my appointment as superintendent in the following November. There are now in our State about one hundred insane persons. For the space of twenty-three months we occupied a temporary building.

Dr. BOWERS. (Minnesota.) Like the gentleman who preceded me, I represent one of the youngest States, yet we have made considerable progress in the way of accommodating the insane. The Hospital was organized in 1866, and ground broken for the new building in 1867. Since then we have completed three wings. The superintendent reported last year the north and south wing of

the building completed, with a \$115,000 appropriation for the erection of the center, and the building of another wing. That has been done since, but it is not in a condition to be occupied. The center has been finished, and it kept the superintendent from this meeting. The south section has just been plastered, and will be ready for occupancy about the first of September. The last Legislature made an appropriation of \$40,000 for putting up a second north wing. It is about to be enclosed, the next Legislature will probably make an appropriation necessary to complete it. When it is completed, we will have room for about four hundred patients, and then we will give up our temporary quarters. We have at this time over three hundred in the temporary building.

Our Legislature has always been very liberal, in fact, munificent as to temporary expenses and building, but we have been crowded seriously, but this arose on account of the time occupied in putting up the buildings after the appropriations were made. Our increase of patients is about fifty a year. On the first of December, we had three hundred and three, and we have increased about thirty in the last six months, although our general increase has been as I have stated.

Besides the construction now going on, we have made other improvements. Much work had to be done about the old building. We have erected a wind mill for forcing water into the Institution, the strong winds there being quite sufficient to drive it.

Dr. CAMDEN. (West Virginia.) I report progress in our State. Last year we erected a building 50 x 50 feet of brick, three stories, capable of accommodating sixty patients, for the incurable insane. It cost about \$15,000 complete and furnished, much less than our stone building, which cost near \$1,000 a bed; the brick, \$250. We are receiving quite a number of patients, about fifty last month. Our main building is completed south of the center, and the center building is finished. We are this summer finishing another section north of the center, one hall of which will be open for patients in August next. We hope then to be able to accommodate all who may become insane for some time to come.

Our Legislature has been generous in the appropriations, making all that were necessary. This year we have but little to expend in building.

Dr. FISHER. I deeply regret, sir, that it is not in my power to report any very important action on the part of the good old state of which I am an humble citizen, in the way of additional provision for the insane. It is well known to each member here, that

she has been utterly prostrated in her pecuniary condition, but with all her poverty she has in the past winter, through her Legislature, performed one act of a most disinterested character, to wit, donated a sum of money for enlarging the accommodations for colored insane. There were various propositions before her General Assembly, in behalf of the insane, by different members, and perhaps committees. The Eastern Asylum wanted \$40,000 for the purpose of enlarging its capacity to the size of the Western, while the people of the south-western portion, earnestly petitioned for the erection of a new and commodious institution, in some central spot of that locality. The bill appropriating \$200,000 for that purpose, unfortunately failed by a single vote, and at a period in the session when too late to secure a reconsideration of the subject, and then the proposition to appropriate \$40,000 to the Eastern Institution likewise failed. But let it not be inferred from these failures there was wanting a proper degree of sympathy on the part of the Legislature with this class of unfortunates, for on the contrary, her past history too strongly demonstrates the reverse to be the case. Having had some experience in the construction of an Institution for the insane, I hope to be pardoned for commenting to some extent upon remarks which have been made by members upon that subject. The ground plan, with all necessary working drawings, had been provided by an architect, and, consequently, no material departure from them was admissible in any particular. When my official supervision began, the central portion, with the north wing, had been completed as far as the roofing and flooring, while only the stone foundation of the south wing was finished.

In prosecuting the work it was very soon found there were radical defects in the plan, but which could not be remedied then, and as the result of carrying out the original design of the draftsman, a building was erected, containing as many, and perhaps as serious defects as the Illinois Institution.

The experience thus obtained, and that derived from subsequent observation has satisfied me of serious objections, which I believe to exist in the more modern style of such buildings, and in the great superiority of the pavilion over every other. In this I adopt the well-matured conclusion of Dr. Wilkins, of California, who, after an extended tour both of Europe and this country, expressed his decided preference for it.

While up, I desire to call the attention of the Association to the resolution adopted many years since, respecting the mode of construction, the location of the buildings, and particularly the size,

or extent of accommodation. One of the resolves declared that no building intended for the insane should ever exceed in capacity two hundred and fifty patients. For several subsequent years this was the governing rule in their construction.

Dr. GREEN. I do not know of any such resolution.

Dr. FISHER. If I am mistaken I wish to be corrected.

Dr. CURWEN. The proposition reads, "the highest number that can with propriety be treated in one building is two hundred and fifty, while two hundred is a preferable maximum."

Dr. FISHER. At a subsequent meeting of comparatively recent date, it was decided that under *certain circumstances* it would not only be expedient, but also to the best interests of the cause of the insane, that hospitals for their accommodation may be increased to six hundred patients.

Thus it appears that an entire change has been wrought in the minds of members, by a substitution of the latter resolution for the former.

Now I take leave to say that this seemingly vacillating course, on the part of the Association, may result in detriment to the cause it holds so dear; for if its *ipse dixit* is worth anything towards influencing the public mind, it should be worth *everything*.

I trust it may be the pleasure of the Association to reaffirm its former action on this subject, and thereby lend its influence to the establishment of what I consider sound policy and true wisdom.

Dr. BRYANT. In Kentucky there are about 1,075 insane persons provided for. At the First Kentucky Lunatic Asylum at Lexington, which I represent, there are five hundred and fifty patients. At the Second Kentucky Lunatic Asylum, of which Dr. Rodman is the Superintendent, there are three hundred and twenty-one patients. Dr. Forbes, who is now present, representing the Third Kentucky Lunatic Asylum, tells me that he has at this time two hundred patients.

The last Legislature made an appropriation of \$100,000 for enlarging the capacity of the Third Asylum, at Anchorage.

In Kentucky there has been inadequate provision for the colored lunatics, the only provision made for them, until very recently, was at the First Kentucky Lunatic Asylum, which at this time has seventy-four patients.

Dr. Forbes informs me that he has provided for about thirty-six colored patients, and that he is in a condition now to make such provision, temporarily, for the colored insane, as the State may demand.

When the Third Asylum is enlarged to its intended proportions, it will contain about three hundred and fifty patients. It is hoped that the insane of the State will then be amply provided for.

Dr. FORBES. As Dr. Bryant has said about all that I would have to say in a general way about our Institution, I will occupy your time very briefly with only a few particulars. We have formerly felt very greatly the want of additional provision for the insane, but action has been postponed, with the view of building a new asylum, and an appropriation was made by our Legislature for that purpose, winter before last. But the necessity became apparently so urgent that it was thought inexpedient to wait, and hence the feeble-minded Institute at Frankfort, and the new House for Reform of Juvenile Delinquents, at Anchorage, were appropriated as asylums for the insane. They were not contemplated in the law, as suitable for the care of all classes, but the harmless and chronic cases were to be provided for at these places, while the more unmanageable and acute, were assigned to the Institutions at Lexington and at Hopkinsville. It was found when tried, as was foreseen by those acquainted with the subject, that this discrimination was impracticable. It was removed by legislation last winter.

When appointed to the charge of the Institution at Anchorage, a year ago, I found it wholly unsuited for its intended use. Reconstruction was necessary, and we set about it at once. By the first of August we had it in such a state of progress, that we could receive twenty patients in one ward; we proceeded in this way occupying, as portions were ready, till we had it completed and furnished by the middle of October, affording a capacity for one hundred and sixty patients.

During last winter there were modifications made in our law. The Institution at Frankfort was remanded to its former use. An appropriation was made for the extension of ours, and its designation changed from the Fourth to the Central Kentucky Asylum. Separate provision was made here for the colored insane also. I have plans and drawings of these extensions with me, which I wish to submit to gentlemen present, who may feel an interest in asylum architecture. I am brought to refer to Dr. Fisher's remarks a moment ago, upon the pavilion plan. I have had occasion to consider various plans recently, and last fall alluded to them in my annual report, stating my inclination to a preference of the pavilion, with reasons therefor. We had to appropriate and refit, as part of our plan, a shop and a school house, so that our buildings are entirely isolated. They are further apart than I would wish,

but our new structures will obviate the objection, and combine the close and the pavilion plans in an admirable way.

We desire to push our work forward and have it ready for occupancy by cold weather. Meantime provision for the colored insane has become so pressing that we have erected temporary wooden structures for them. When our present work shall have been finished, we will have a capacity, altogether, for about three hundred inmates.

We have imperfections in our laws, which it is not worth while to refer to here. The Legislature of last winter and winter before, while it was injudicious in some particulars, was well intended, and last winter especially, it was liberal and satisfactory. I think it covers the ground fully as far as our necessities are concerned.

Dr. GREEN. (Georgia.) Some important changes have taken place in the status of our Institution, since the last meeting of the Association. We have made a great many improvements, and have now in process of erection an admirably arranged kitchen, the other being very much to our annoyance and inconvenience, in the basement of the center building. So far as the buildings occupied by the patients are concerned, we are satisfied with the condition and arrangements, but the patients are entirely too much crowded. In our State we are obliged by law to receive all classes, ineptiates, epileptics and idiots, as well as the insane of every degree, consequently we have had too many to accommodate. I have labored for at least fifteen years past to get the Legislature of Georgia to provide for the erection of a suitable institution elsewhere, for the care of idiots and feeble-minded persons. I have endeavored also to have provision made elsewhere for the colored insane, of whom we have now about one hundred, in detached buildings, but very comfortably situated. The males are kept at a distance from the females, in buildings in the form of an L, and two stories high. I think they generally desire a separate institution for the care of their people. If we were to receive no ineptiates or idiots I think we would be prepared to accommodate all the insane for years to come. Within two years past there has been an addition made to our Institution, which had become absolutely necessary. I strove earnestly to prevent such enlargement, but it was decided to be cheaper to make additions to the present buildings than to erect others. I hope they have gone as far as they are likely to go in the line of extension, but I can not vouch for it. When I left home we had five hundred and sixty-five patients of all classes, including about

one hundred colored, necessarily crowding the Institution to an injurious extent. We are not by any means satisfied with the classification of patients. A satisfactory condition of affairs in this particular, can not be arrived at in the crowded condition of the Asylum at present. We have extensive grounds in course of improvement. The Institution probably owns more land than any other of the kind in the country, we have over 3,000 acres.

Dr. SHEW. How much is tilled?

Dr. GREEN. We have extensive gardens, but comparatively small farm operations. We do not employ the patients much, for their labor is not reliable at all. The main object in having this land is to supply the necessary amount of fuel.

Dr. SMITH. Is the land all in one body?

Dr. GREEN. No sir, between us and the most remote, (an addition of 1,700 acres, purchased year before last,) there is a small strip of land belonging to a brother of the party of whom we purchased the other, which perhaps will also be taken, but I should consider the land nearly in one body.

Dr. COMPTON. What aged idiots do you have to receive?

Dr. GREEN. Of all ages, in whom such condition could be determined.

Dr. COMPTON. Have you any young?

Dr. GREEN. We have some seven years old, but none of any advanced age. I do not remember to have seen an idiot more than forty years old. They are generally short lived. We have a very remarkable peculiarity in the case of two, one of whom has been taken home by his friends; two individuals who had reached their majority when brought to the Institution, and have been there ever since. They are both subjects of peculiar deformity, the hands and feet resemble very much the fore legs and hind legs of a rabbit. They have the same or nearly the same condition of mental imbecility, children of the same parents, born within two years of each other, and not only born blind, but without the vestige of an eye-ball in either, an anomaly I never met with before.

Dr. LETTS. In Canada, in the Province of Ontario, we have three asylums, one at Kingston, one at Toronto, and one at London. The one at London, has, during the past year, undergone considerable repairs or alterations. We have had a new sewer built, which is carrying away a great deal of the odor resulting from previous bad drainage. There has been a large amount of money expended in repairs to the building. In addition we are beginning to relieve the main building by the construction of cottages. We

expect this clump of cottages will be opened in July, and will contain about sixty patients. It was the intention of Dr. Landor to write a report upon the arrangement of these cottages, but upon consideration, he thought he would wait another year and describe more fully the mode of clumping them, and give the object of their construction.

The PRESIDENT. I congratulate the Association upon having a more complete and satisfactory report than ever before since the formation of the Association. I hope it will be continued in years to come.

The Association will now give attention to the reading of a paper from Dr. Ranney.

Dr. RANNEY. Previous to the last meeting of the Association, I prepared a paper relative to the operation of the law in Iowa, entitled "An Act to protect the Insane," with special reference to the use of mechanical restraint in the treatment of the insane in hospitals, which was a question prominently considered by the committee created by that law in pursuance of their duties under it. I was prevented from attending the meeting at a late moment and the paper was not presented. The occasion for saying some things I had written having passed away, I have re-written the paper for presentation at this time. If the Association should find it tediously lengthy, and somewhat desultory, I may say that hitherto I have occupied but little of its time.

The paper was then read by Dr. Ranney, of which the following is an abstract.

During the present century, a period of unequaled intellectual activity, and rapid advance in every branch of science, medical science as a whole has probably kept pace with its sister sciences. Only a little more than a quarter of a century ago, a score of valuable remedies, all adding greatly to the resources at our command, had not been discovered or applied; the revelations of the microscope in the field of pathology, were yet meager and uncertain, and the scalpel and unaided vision still maintained precedence in this realm; doctrines and dogmas, deemed medical truths, held sway which are now admitted to be medical errors; medical practice was essentially an artificial one, consisting chiefly in the administration of certain substances, with the expectation that they would

of themselves remove disease, but this has since been superceded by a more rational practice which recognizes nature, or the vital guiding principles of all animal life, as the great agent in the cure of disease, and employs art as an auxiliary to be resorted to where deemed useful in the light of present knowledge, and avoided when prejudicial.

In comparing the advances that have been made in the different departments of medical science, we can only reach the conclusion that all have not been cultivated with equal success; and in some of its most important aims and objects, it is still more speculative and ineffectual than objective and practical. There are inherent difficulties attending the study and investigation of some branches, especially the disorders of the nervous system, that do not obtain in others; and though observations have multiplied, and many fields have been pretty thoroughly explored, and much finished research, accumulated fact and valuable experience have been laid up in store, which it becomes us to study carefully and endeavor to elicit therefrom the practical lessons truth always teaches, we have to deal almost daily with questions and principles not yet authoritatively settled which have to do with the management and treatment of insanity.

One of these questions is the use of mechanical or instrumental restraint in the treatment of the insane, a question that has led to much professional controversy in Europe, and divided professional opinion in this country, has deeply stirred public sentiment from time to time, and perhaps has been the cause of much of the popular odium that has been cast upon hospitals for the insane, and their directors, in some quarters.

That the use of restraining apparatus was terribly abused in various parts of Europe, and through it the unfortunate insane suffered an untold amount of neglect and cruelty, till near the close of the first half of the century, we have abundant evidence in parliamentary reports, and the writings of Conolly, Browne, Hill and others; not willfully we may believe, but resulting from a mistaken, erroneous,—ignorantly erroneous—idea of the nature and causes of insanity.

We may not specially arraign the later people or the medical profession of Europe, or any country, for any ill or improper treatment of the insane; for some or greater abuse has probably prevailed in all historic ages; the legal profession have executed insane persons against the protest of the medical profession; cruelty has prevailed in punishment for crime in various ways, and

persons have suffered for honest opinions' sake, at the hands of bigots, under the sacred guise of religion, or in the name of good government, or under the plea of necessity or the public weal. Nor is further illustration of this painful history necessary before such an audience as this; and this much has been said only to preface the statement that neither we nor those who have preceded us in this branch of medicine and philanthropy, should be reckoned sinners and aspersed beyond our or their contemporary age. In any comparison of the treatment of the insane in different countries, we can but look with pride upon the advanced humanity of our own. Looking at the condition of the Lincoln Asylum in England, which was opened in 1820, as described by Mr. Hill,—no worse probably than many or all others in that country at that time,—the picture is a dark one. The patients were cruelly restrained, abused or neglected, while the keepers were indulging in riotous living. There was no responsible superintendence till after a fatal accident, which led to an investigation, which was much needed.

During the following six years, prior to the appointment of Mr. Hill, there were three Superintendents, all advocates of the free use of restraint. "The first used restraint indiscriminately, the second very largely, the latter said it could not be dispensed with," and "was the very basis and principle on which the sound treatment of lunatics was founded," that the applications of the "various modifications of this *powerful means*, to the peculiarities of each case of insanity, comprised a large part of the curative regimen" in the treatment of the insane, and was of the "very first importance," and as little likely to be dispensed with in the cure of mental disease, as the various articles of the *materia medica* in the treatment of other diseases.

How little of the spirit of scientific inquiry is shown in this language! and how often has such dogmatism caused mortification, when it has been at length discovered that there is after all a "better way" not hitherto discovered. Let us now turn to the condition of the insane in the earlier Institutions, for their cure and treatment, in this country.

The McLean Asylum was opened in 1818, two years before the Lincoln Asylum in England. From an examination of its early records, and conversations with persons who had been connected with it from its infancy, and for a long period, it is certain that a singularly wise, enlightened and humane treatment was adopted in the beginning and carried out.

And it is to be believed that the important Hospitals founded during the next two or three decades, were conducted in an equally humane and enlightened manner.

This position is confirmed by the late Dr. Bell, who says in the Report for the year 1837, "With respect to the general management, moral and medical, the present Superintendent has attempted few innovations or experiments. He has rather attempted to carry out eclectically and combinedly the respective plans of moral and medical treatment of the eminent individuals who have preceded him, not rejecting the experience of other institutions." "In this, as in every Institution which has kept pace with the age, everything *like severity has never been found* necessary, and the great principle of mild, soothing, persuasive yet firm, decided and parental treatment has proved fully adequate to accomplish every desired result."

Although this does not mean absolute non-restraint, for mild, instrumental restraint infrequently and judiciously applied, we may say, existed in all the Hospitals and Asylums in this country, in the use of a few articles of leather or linen; yet it does mean, that before the advent of Mr. Hill at Lincoln, or Dr. Conolly at Hanwell, there was practiced in this country generally, a system about as near non-restraint as any thing that has been or can be well carried out, for much length of time, in any Hospital for the insane. And precisely the same moral treatment was in vogue to avoid restraint that was afterwards advocated in the pages of Hill, Conolly and others. Nor was seclusion resorted to as a substitute for restraint.

In Dr. Bell's report for the year 1839, he says, "It is the successful use of the means put into our hands in the extensive architectural arrangements here provided, that has enabled us to dispense almost entirely with restraining measures, or even confinement, as evinced by the fact that our lodge or strong rooms are not called into use more than three or four times during the year; that not one per cent. of our whole number is on an average under any constraint."

This is certainly a most creditable showing. Have we, on the whole, or can we advance much beyond this position? Have we not sometimes fallen behind it on a plea of economy, or through a willingness to shirk the unceasing, patient, thoughtful attention a large number of patients in Hospitals need, and thus brought upon ourselves and the Institutions under our care, the odium and the pernicious legislation that seem to have sprung out of, or at

least to have closely followed, some sharp criticisms in recent publications, and the acrimonious utterances of intense humanitarians, or persons whose mental integrity is at least questionable? And to just such results shall we be ever in danger, so long as restraint may be deemed necessary, unless with unceasing vigilance we guard against the abuses that with its use are exceedingly liable to creep in. With strong inclinations towards non-restraint, or to the least practicable use of restraint, it has not seemed to be quite wise, although possible, to dispense with it altogether. Every now and then cases arise, in the treatment of which it proves to be a valuable, if not indispensable auxiliary in the treatment. In active mania, so common a form of insanity in this country, characterized by violent, destructive and mischievous propensities, and a remarkable insensibility to moral influences, personal kindness, and everything that may be done for their welfare, as well as to almost every sense of delicacy and refinement, we may see after weeks of useless effort in all other directions, upon the application of some mild form of restraint,—the camisole or a strong linen frock with continuous sleeves, or the use of the crib bed,—the boisterous state exchanged for one of greater composure, the attention more easily attracted into healthier channels, the mental operations become more coherent, and physical reaction more natural, while the brain and nervous system get the needed rest, the physical functions are better performed, and thus a state of progressive improvement inaugurated. If we ever can trace the relations of measures and effects, it would seem we may in such and similar cases.

In all the hospitals with which I have been connected, there have been patients from time to time who would, with more or less persistence, wound themselves, creating ulcers that would never heal unless the hands were confined. In these persons moral influences go for almost nothing, and the only alternatives are perpetual watching, both night and day, while the propensity lasts, or restraint; and between the two, when necessary for any considerable period, I have felt fully justified in resorting to the latter. A pretty close seclusion, or a qualified liberty under some mild form of mechanical restraint, is the only safe course in guarding against the dangerous violence to which the epileptic insane are often liable. Attending circumstances must govern action in each case, but it would seem that no one with experience can but regard mild restraint in such cases, with at least as much favor as any other method of treatment.

There is a small class of chronic insane persons in our hospitals, for whom seclusion or restraint for varying periods seems to be necessary, and for a small portion of this class almost continuous.

They are persons whose feelings are greatly perverted so that little sympathy or any kindred quality is left to them, and are besides exceedingly irascible, and prone to see in simple and unoffending acts, insults, or evidence of conspiracy, for their discomfort or injury. In the extreme cases every feeling or instinct of humanity seems blotted out. They fancy they are surrounded by enemies, are sometimes little less ferocious and fierce than wild beasts, and feel little or no regard for human life. Kindness and sympathy and everything done to modify their alienated condition is nearly thrown away upon them; they often persistently refuse those medicinal agents that might quiet nervous excitement, and repress violence; and without restraint, officers, attendants and patients are constantly exposed to their fury, and have in several instances known to me, barely escaped serious injury or death at their hands.

The presence of these cases in our hospitals, as has been said by Dr. Ray, "must always prevent the existence among us of thorough-going advocates of non-restraint."

In the case of suicidal patients, such restraint as is implied in the use of the covered bed, or crib, seems to me eminently appropriate at night, and affords a full equivalent for watching, or other supervision, and it is less liable to abridge sleep than any other measures affording the needed security.

These covered beds can be made just as comfortable for the patient as an ordinary bed, and indeed I have known patients to prefer them to the ordinary bed. A female patient under care at this time—a melancholic, with suicidal, and perhaps homicidal propensities of more than three years' duration—has frequent paroxysms of great mental distress, and when they appear, she sometimes begs to be put into the covered bed, where she at once becomes quiet.

And then how shall we treat that so frequently fatal disease, acute delirious mania, if we do not apply restraint to secure recumbency? Without such restraint as will secure it, and in the best possible way, conserve the physical forces, there is no success. In many, or most other cases where restraint is applied, increased attendance will wholly, or in part, take its place, but in this disorder, such substitution is more likely to be attended with ill results, than any needful application of mechanical restraint, for all

experience goes to show, the victims of this disorder never yield to any superior force, and moreover, the simple presence of persons tends to perpetuate the cerebral irritation and mental excitement.

It must be conceded by those who use restraint, that the insane have been, and can be managed without it. But whether absolute non-restraint, under every and all circumstances, as has been preached, and is said to have been practiced, is the best course, or the better way, is the question before us, and a proper one after the lapse of fifteen years since the question has been under discussion by the Association; and if it is shown that we have made progress within these years in the treatment of insanity, so as to diminish the use of restraint, "it is just as noteworthy and praiseworthy as success in any other particular."

Just to what extent the system of non-restraint has been carried, or how far it has become general in the country where it was first practiced, does not seem to be quite certainly disclosed. Visitors to British institutions tell us they have witnessed, at least, the exceptional use of restraint, or what is called restraint in America, even where the non-restraint system is the prevailing principle. Still we must believe from what has been said and written, that, from the infrequency of the more acute and intense forms of insanity, especially mania, in the British institutions, as compared with those in this country, the employment of a larger proportion of attendants, and for other reasons, perhaps, less mechanical restraint is employed in the management of the insane with them, than with us.

If revolutions never go backward, as is said, they certainly seem sometimes to overleap the boundaries of reason and common sense. And it is no wonder that from the horrors of the first quarter of this century, even to a later period, the re-action should have been strong enough to carry persons and opinions to quite the opposite extreme; hence we have had absolute non-restraint, and strenuous advocates for the system, which all will cheerfully grant, is far better than the system, that preceded it; and at this extreme position, a strong public opinion, based as it often is, more upon mere feeling than knowledge, has maintained the principle, and has no doubt prevented many, or at least some medical directors of hospitals or asylums, from speaking their real sentiments averse to it. There is perhaps nothing with regard to which we can say it is settled, that the end of inquiry and progress has been reached; and at length we see professional and public opinion in England is receding from its extreme position, and conforming

more to the opinions and practices of alienists in this country. The utterances of Drs. Rogers, Yellowlees, Lindsay and others will confirm this view. And lastly we have the following expressions of Dr. Sheppard, who says: "I happen to be one of those who as humane, I trust, as other alienist physicians think that much evil has resulted from its too rigid adoption." "Many of the broken ribs, and other casualties, in English asylums, which have given rise to so much comment and censure, moving the facile pens of novelists, and stimulating the imaginations of their readers, have resulted from struggles between attendants and patients, which would have been avoided, and ought to have been avoided by temporary mechanical restraint."

These words may well engage the attention of sentimentalists and self-constituted philanthropists throughout the country.

Dr. CURWEN. I am very glad to hear the views which Dr. Ranney so well expresses. I believe the safest course is always to pursue the mean between the two extremes. My own opinion in regard to the use of restraint is, that it should be used wherever the welfare, safety and security of the patient, or those about him, may require it, and in no other case; and the medical superintendent is the only one to say when it is required. When I first entered the Pennsylvania Hospital for the Insane, as Assistant Physician, thirty years ago, I found that restraint was only used in a few cases where necessity seemed to demand it, and that is still the rule in that Institution, and I have adhered to the principle just stated in all my practice. With the class of cases we are constantly obliged to receive in our hospitals, I do not believe it prudent or proper to say we will use no means of restraint, for at times the lives of the patients, of the attendants and officers will be jeopardized without some restraint is placed on a certain class of patients for a time; and I believe the life of a patient is often saved, and their recovery often facilitated, by a timely, judicious use of certain modes of mechanical restraint. When patients are obstinately bent on destroying their own clothing and that of others, it is safest and best to confine the hands by such means as will prevent their carrying out that propensity. Where it is necessary to administer food regularly, it can be done much more readily by temporarily confining the hands, and thus preventing those protracted struggles, and other difficulties so often met with in that class of patients. To attempt to control certain patients by having several attendants hold them, only increases the irritation and excitement of the patient, and tends to make them more difficult

to manage, and provokes a struggle in which both parties too often lose their temper. For myself I am free to confess that I would be unwilling to attempt the management of a Hospital for the Insane; and receive all cases which might be sent, if I were compelled to do away with all forms of restraint. I believe it would be an injury to certain patients whose restoration is often promoted by the application of slight restraint for a short time. I wish to be understood as advocating only mild measures. To use the term given by a medical man in Pennsylvania a few days since in a discussion on certain points of medical practice, "The course adopted will be governed by the quality of the brain of the individual." No man should follow one undeviating rule in all cases. He must have the sense and discretion to see when it should be applied and when it should be discontinued. He should study his cases carefully, and observe the varying aspects, and then he will be prepared to act wisely, judiciously, and to the benefit of his patient. The rule in American Institutions, as I understand them, is that no restraint is to be applied without the authority and direction of the Superintendent. Acting on this, I think there will be no difficulty about the abuse of restraint, which seems to be the great fear of those who insist on absolute non-restraint. They argue from the abuse, against the cautious, guarded use of restraint. In all cases of the use of restraint we are to be guided by the necessity of the case which we are treating. What is necessary to make a patient more comfortable and hasten his recovery, we are bound to use without regard to the views of those who know nothing of the case, and who are governed by certain notions of a theoretical character. The physician is presumed to know what is for the best interest and welfare of his patient, and no hue and cry of a sensational character should influence him in the discharge of his duty, and cause him to deviate in the least from what he is convinced is the strict line of duty.

Dr. FORBES. My views have been represented so fully by Dr. Curwen, that if I could express them as well, the expression would be but a reiteration. I believe that restraint is indispensable on certain occasions; when and of what kind, the Superintendent should be the sole judge. My rule is to allow no attendant to act in this regard without first consulting myself or my assistant, unless there may be a pressing necessity, and in that event to report immediately after.

I am so fully impressed with the propriety and even necessity of restraint at times, that I can not conceive how any one could suc-

cessfully manage some cases without it, in one form or another,—the lodge, crib, locked seat, camisole, straps, mits or the like,—and the only objection I can see to their use when necessary, is that it may possibly lead to their abuse when unnecessary.

It has only been about three weeks since we had to treat a very maniacal female. She would hurl herself violently against whatever might be in her way. We tried various restraints,—bed-straps among the rest. She would twist and entangle them about her to her peril. Manu-tension seemed alone available, and this we practiced till our attendants were tired out. I at length devised a contrivance that answered the purpose well. It was an elongated straight jacket,—as well as I can describe it—without sleeves, fitting at the neck, closing behind with a button, like the modern shirt, and extending beyond the patient's full length, and closed at the bottom. This was adjusted upon her, and laying her down, secured the corners and sides to the bedstead. I can not for my life imagine how that patient could have been controlled to prevent her inflicting injury upon herself, without some such contrivance of restraint. I may repeat that abuse of the practice is all that is to be dreaded, and that in my opinion, proper discretion, always tempered with a humane sympathy, is sufficient guard against that.

Dr. EASTMAN. The paper just read accords fully with my own views. I could not undertake to manage a State Lunatic Hospital without the occasional use of mechanical restraint. I am sure I have seen cases in which the lives of patients have been saved by the judicious use of mechanical restraint. At the Worcester Hospital there are a large number of chronic cases who are very destructive, and prone to denude themselves, and I am obliged to use a good deal of restraint on these accounts. Owing to the crowded state of the house, all of the quiet, chronic class, who can find homes elsewhere, are discharged, which leaves the proportion of violent and destructive cases very large. The crowded state of the house also renders it necessary to use some restraint at night, that might otherwise be avoided.

I think, however, we should all strive to use the least amount of restraint that the necessities of our cases will admit.

Dr. STEVENS. I did not hear the first part of the paper of Dr. Ranney, but I think I comprehended his ideas fully. I am in favor of the views expressed, perhaps I should say, decidedly so. I think the sentiments of this body should be known, and fairly expressed, in regard to this matter. I am decidedly of the opinion

that we do injustice to the insane themselves, to have the sentiment become general, that we are opposed to all mechanical restraint. I have known patients to ask for the camisole and the sleeves.

Dr. LETT. (Canada.) As I am but a very young member in this branch of the profession, I prefer to hear the views of others. So far as my experience goes I think this is simply a question between good attendants and restraint. Of course I will not say positively, where there is restraint used, the attendants make an excuse to go about their own enjoyment; and whenever there is a little excitement, the first thing they do is to rush to the Superintendent, or one of his Assistants, and ask for restraints. I think there are very few cases where it is necessary to apply it.

Dr. SLUSSER. (Ohio.) It could not be expected that I would be prepared to say anything on the question discussed in the paper, but, in my short experience in the management of insane subjects, I have met with a class requiring restraint, not alluded to by the writer. I refer to those who persistently walk or stand until their extremities become swollen, and they give evident signs of physical prostration. I have no way of controlling such but by tying them down on a seat. If there is any less objectionable mode, I should like to know it.

Then we have a class of *noisy* patients, harmless in every other respect, but so loquacious and boisterous that they disturb the whole ward. They may be isolated, or confined in the lodge, but that will not quiet them, and is most sure to disturb patients of other wards. I do not think it advisable to subdue them by a narcotic, and so I am at a loss to know what to do. I trust some of the brethren who have yet to speak on the subject before us, will give me the benefit of their experience.

Dr. WORTHINGTON. I have had a good deal of experience in the use of restraining apparatus, and have also made experiments in the direction of non-restraint, and perhaps I may be indulged in a few remarks detailing my experience both in the use and disuse of such means. It is a good many years since I began my acquaintance with the insane and engaged in their care and treatment, and I suppose the use of restraint was more common thirty years ago than it is now. I entered on my duties in the Institution where I am now employed in the year 1842, at first in the capacity of resident physician, the principal medical officer residing out of the Institution. A number of forms of restraint were in use, and were called into requisition almost daily as the different cases under treatment seemed to demand. As time passed on we dispensed more

and more with the use of these means, and finally finding it well nigh impossible in the worst cases, to maintain them in use in consequence of the persistent efforts of the patients to remove them, we were in a measure compelled to cease their application.

When I took charge of the Institution as Medical Superintendent, I determined to try the experiment of doing away with the use of restraints in every case where it seemed possible to do without them, for I never believed they could be dispensed with under the form of the bed-strap or covered bed, in cases of acute maniacal delirium and other forms of physical prostration, accompanied with high excitement. Except in such cases, for the last twenty years, I have not used a muff, a mitten, or a belt to confine the hands of patients. In cases of females who would divest themselves of their clothing, I have used the strong dress, either with the continuous sleeve, or with the end of the sleeve sewed up, and furnished with a strap to fasten behind the back. It is only in comparatively gentle and feeble patients that I have considered these means useful. In others I have found no form of restraint that could resist the determined persevering efforts of a highly maniacal patient to remove them, and I have concluded that, if I must restrain their muscular movements by mechanical means, that I should be compelled to resort to manacles and fetters of iron. I have, therefore, preferred to let such patients have their own way, placing them in a warm room where they could not suffer from exposure, and I have found the number of cases necessary to treat in this way so small as not to cause any practical inconvenience. In this way I have managed now for many years, not always satisfactorily to myself, but choosing what seemed to be the least of two evils; and the result of this experience has been that, since the use of mechanical restraints has been almost entirely discontinued, there has been far less trouble in the management of the patients than there was when the attempt was made to secure their good behavior by such means, and one consequence has been that, for nearly twenty years since this experiment has been in progress, there has not been a case of suicide in the Institution.

Dr. COMPTON. I regret that I did not hear the whole of Dr. Ranney's paper, but from what I did hear, I think I may safely endorse it all, at any rate, I practice in our Asylum what he recommends. I imagine it to be very difficult to conduct an Asylum for the Insane, of any magnitude, without having a few who, now and then, require some kind of restraint. This restraint may be rendered more frequently necessary by having incompetent attendants,

or perhaps it would have been better to have said that much of the restraint may be avoided, by having patients under the control of attendants, who possess a great deal of patience and the proper tact.

I think an Asylum can not be found in this country, where the first thing a boy learns to read is the Declaration of Independence, and where every youngster learns that he is "in the land of the free and home of the brave," in which restraint will not be found necessary. Patients are often quarrelsome, frequently mischievous, and sometimes violent. We must either confine such patients in a solitary room, or permit them to remain at large with the other patients, subjected to some kind of personal restraint. I would not send an insane child of mine to the care of a Superintendent who professes and practices an absolute system of non-restraint. I would be constantly looking for a letter informing me that some violent maniac had knocked him on the head with a chair, bitten off his ears or gouged out his eyes. There are also some patients disposed to commit suicide. They must be restrained against themselves. We had a case not a great while ago,—strongly suicidal,—who with the finger nail alone had cut down to the carotid artery in the night. It was out of the question to require an attendant to watch that woman all the time. While not under the eye of an attendant she was required to wear the mits. The question as to the kind of restraint to be employed in a given case, depends entirely upon the case itself. It is frequently an important question whether we shall confine a patient in a solitary room, or give him the liberty of the hall with the other patients. It frequently occurs that a few minutes solitude will quiet a patient, but as a general rule solitary confinement has a bad effect. It is generally better to let him associate with the other patients, even if he must have his hands confined. Within the last few years we have made a great advance in the management and treatment of insanity in this matter of restraint. Before the days of Pinel and Conolly restraint was the rule. It is now the exception. We do not use restraint very often, but occasionally it is indispensable. I would be glad if insanity would always confine itself to those forms in which we are not required to use restraint in our Institutions, but before that happy day arrives, insanity will have to abandon many of its present types and bad habits.

I will say, in conclusion, that in all cases, the degree and kind of restraint should be dictated by the Superintendent or an intelligent assistant. In every case in which an attendant may suppose restraint to be necessary, he should report the fact at the office.

Dr. REYNOLDS. We have had an instance of a new form of restraint. A patient was brought to our Hospital a few weeks ago with a grain sack thrown over his head and body, and lashed with ropes from neck to feet, making the most perfect restraint I have ever seen, the use of which would not be permitted in any hospital.

On opening the Hospital, I adopted the system of non-restraint, so far as possible, but I took occasion to have on hand, in case of an emergency, all the necessary appliances. I visited several Hospitals in Europe, and saw there the same forms of restraint that we use in this country. They had muffs, mittens, and what more nearly resembled a straight-jacket than any thing I have seen in use in this country.

Dr. HUGHES. The question of restraint or non-restraint, is resolvable simply into how much or how little restraint, and under what circumstances shall restraint be employed. Dr. Conolly never abolished restraint. Over his grave we speak of him as one of non-restraint fame, but he reduced restraint to the minimum. The Hospital in which he distinguished himself stands as a memorial of the fact that he never abolished restraint, and the hospitals all over the land stand as evidences of the fact that the system has not been abolished. What is insanity? The abnormal, irregular disintegration of the cerebral cells, producing improper, unnatural brain action, and it becomes a medical question how to restrain this abnormal and irregular cerebral disintegration. The prescription which you give the patient to put him to sleep, is a restraint, just as much as your camisole, your mits, or your bed-straps, or just as much as your cribbedstead, and you put into requisition the principle of restraint precisely when you prescribe a hypnotic. Your object is to arrest the irregular disintegration which is disease, and which is exhausting the patient. If they have a case of violent maniacal excitement across the water, where they have abolished the system of restraint, they pack their patient in a wet sheet. This is calmative restraint. Is it practicing a non-restraint system to pack him in a wet sheet and let him sweat it out? Restraint is a medical question, and we have to consider when to use the narcotics, splints for the brain diseased, as well as the more mechanical methods of restraint. We have to choose between chemical, mechanical, or physical restraint, employing one or the other according to circumstances. Take for example the substitution of physical power, represented in those men having charge of your patient, where they

have adopted the non-restraint system, it means that they have abolished the lock-up-seat, but they have substituted physical restraint instead. The question for medical men to consider, is, whether the restraint of three or four men is more or less irritating to that particular patient, than the restraint of the lock-up-seat, the padded room, or the hypodermic injection, the anaesthetic or hypnotic. Each case has to be solved by itself, and one patient will be quieted and restrained by one means, another patient by another plan. It seems to me necessary that we should employ restraint under the same circumstances and restrictions that we employ our remedies, directed to be applied by a medical officer for curative purposes.

Dr. KILBOUNE. I do not know that I can add a word upon the able paper of Dr. Ranney, or the able remarks of those who have followed him. I quite agree with the views Dr. Ranney has expressed. I confess that I am unable to see how some form of physical restraint, or hypnotic restraint is to be avoided in all cases of insanity.

Quite recently I had under my charge a case which very much resembled opisthotonus. Every morning about ten o'clock the man would become excited, and there would also be a period in the afternoon when he would be very much excited, and he would reach back and butt his head against the wall, and down on the floor, bumping it anywhere. That man had to be restrained, and the question was whether he should kill himself or have some restraint. I decided it without hesitation, and do not think any sensible man would have hesitated long.

Last Sunday morning I went into the ward, and had not gone more than ten or twelve feet, when a patient said, "Doctor, what are you keeping me in this hospital for?" For you to get well. He said, "What authority have you?" I made answer, when he immediately became enraged and walked up and down the ward. I at once sent for two additional attendants. I saw that the epileptic frenzy was coming upon him, and the sooner the frenzy was cared for the better; but before the messenger could return, the patient picked up a spittoon and threw it with all his force at the head of another, breaking a window, the spittoon being stopped only by the guard. Then he took off his coat and was going to fight the patient. I went up to him and said, "John, be quiet." He immediately flew into a passion, and it took a dozen men, including several patients, to control him. This comes on every few weeks, and it became a question for medical experts, whether he was responsible after twenty-four or forty-eight hours.

I do not see how it is possible to get along without some form of restraint. There should be great vigilance used. To put on a straight jacket at the first outburst of excitement, is uncalled for, but with strict rules, the use of these restraints seems to be in accordance with every rule of propriety in an Institution where these restraints are required.

Dr. BOWERS. I do not know that I can add anything of importance. In our Institutions we use the same simple restraints that have been mentioned, as the muff, the strap and wristbands, and the camisole, with solitary confinement in crib, as far as necessary in cases of violence.

We have certain cases that require to be confined in a room for an hour or two, and when the paroxysm of excitement subsides, they can be let out and go quietly about the ward.

Dr. RODMAN. I was not present when the paper under discussion was read, but gather from what has been said since I entered the room, that the question of "restraint" is before the Association. Upon this subject I am already upon record, I have only to repeat what I have before said, that I am decidedly in favor of restraint, in certain forms of excitement. In my judgment there is neither peace, comfort nor security for patients, nurses or physician without it, in some such cases as have fallen under my observation. Properly applied, mechanical restraint I regard as a legitimate means of treatment; its use I favor, its abuse I, in common with all who are present, deprecate. I will make this remark, that in a hospital for the insane whose income is limited, and in consequence its corps of nurses comparatively small, that an occasional resort to the mittens, the muff or the camisole, is inevitable, and I believe proper; and farther, I think that some form of mechanical restraint is much more preferable than that imposed in hospitals, where the system of non-restraint is said to be practiced.

Dr. SHEW. I desire simply to express my concurrence in the views advanced by Dr. Ranney in his paper. It seems to me just as important to use restraints under certain circumstances, as to prescribe medicines, exercise or amusements; first, for those cases of acute delirious mania, referred to by the Doctor, it is absolutely necessary to restrain what little strength remains; and secondly, in cases of chronic mania where there is a disposition to destroy. I think we all have these cases, a persistent desire to destroy clothing particularly. No harm can come from restraint in either of these cases if properly used, but on the contrary much good may be done.

I suppose we all have some curious experiences in reference to certain cases. I remember a chronic case of mania, an Irish woman, who gave an unlimited amount of trouble for several months. She seemed to be persistently inclined to remain naked. She would be quiet after she had destroyed all her clothing in the room or in the hall in the presence of others. As a last resort, when there was nothing left that she could wear, on a certain occasion when her husband came to see her, I told the matron to put on pantaloons and a soldier's blouse. These were the only articles at hand, and much to our surprise she wore them and was very happy. For several months, until she died from the disease, she was allowed to wear men's clothing.

Dr. CARRIEL. I concur in the views of Dr. Ranney as expressed in his paper. In our Institution we use the camisole, the muff, the wristband and the bed-strap. I believe that is about the only means of restraint we have. I consider some form of mechanical restraint absolutely necessary, as, in cases of acute delirium or acute mania. Restraint is absolutely necessary sometimes, to preserve the life of the patient, by keeping him in a recumbent position, and thus economizing the vital force. Then in cases of melancholia the same reason for using restraint appears. In epileptic and other delusional cases, sometimes there are those who are very quiet, and then suddenly rise up and make a violent attack upon somebody, without provocation or warning. I have such a case now where I consider restraint necessary. It is a question whether you will use mechanical restraint or seclude such a person. My observation is, that seclusion is just the last means to be resorted to in such cases. If you want to make a man noisy, destructive and filthy, shut him up. Then there is a class that denude themselves, and tear their clothing, when restraint or seclusion becomes necessary. I believe I agree with all who have spoken. They are all in favor of restraint, and some particularly, in favor of very little. I favor very little restraint.

Dr. EVERETT. I think that we are all agreed ; but the question seems to be, how much and what kind of restraint is required ? I know of no other object in sending these persons to an insane hospital than that of proper restraint. So far as medical treatment is concerned, any other physician is supposed to be as competent to administer medicine, understanding pathological conditions, as well as the Superintendent of a hospital. The Hospital can administer restraint. The building itself is a mechanical restraint. I believe that what we call mechanical restraint is often preferable to chem-

ical restraint, or the restraint of medicinal influence. True, it may be better to knock a man down with chloral than with a club, but it is better to knock him down than to permit him to kill himself by unrestrained action. The tendency of the time, evidently, is to reduce mechanical restraint, as an element of treatment, to its lowest practicable point.

When I assumed charge of the Indiana Hospital, I found perhaps fifteen per cent. of the patients wearing some kind of mechanical restraint. I have reduced the ratio to not far from two per cent. Below that I find it impracticable to go. I prefer the cribbed to other methods of restraint in a large number of cases, as we gain by it the recumbent posture and quiet the heart's action.

Dr. BASSETT. I wish to express my full concurrence in the views so ably presented by Dr. Ranney. It seems to me that sometimes in considering this question of restraint, (but perhaps I should only speak for myself in this particular,) we are governed more by public feeling and sentiment, than we are by the necessities of the case, and a strictly scientific knowledge. But public feeling is very fickle and a very unsafe guide. Nothing is more frequent than to see patients brought to an Institution completely burdened down with restraint. Any one who travels much upon a railroad can not fail to witness it, yet who ever thinks of remonstrating? But who would pass through the wards of a hospital, and see such restraint, without at once crying out against its inhumanity? Patients have been brought to my care after having been so completely restrained by a blacksmith, as to necessitate an hour's labor in divesting them of the restraint.

In our Hospital we use but three forms of restraint: the waist belt and leather cuffs, the camisole, and covered beds. We have no muffs. For cases such as those presented by Dr. Slusser, I should use the covered bed, and I know of no other satisfactory way for securing the end to be desired in such cases.

Dr. GREEN. With the general views expressed as to the absolute necessity, in many cases, for the employment of some form of restraint, I concur fully; equally in the obligation to restrict it within the narrowest bounds consistent with humanity to the patient. I hold that to such extent it is essential to the safety and welfare of the patients. I employ it with four different classes. The suicidal patient, who seeks to destroy himself or herself by strangulation. For instance, it is common according to my experience and observation, for suicides to make up in their own minds some particular plan by which to destroy themselves. I have re-

garded it as almost miraculous how pertinaciously they will adhere to such preconceived plan for effecting their object. When they are intent on blowing out their brains, taking poison, jumping into a well, or cutting their throats, I put them under no mechanical restraint whatever, but rely on other safeguards. Where persons will not remain in bed but, running about their room, wear cut the influence of any narcotic or hypnotic, if it were given them, and disturb the rest of other patients, I place them in such circumstances as to secure a recumbent position. Again, in the case of persons who persistently denude themselves of all clothing, I think it better to put them under restraint than to keep them in their rooms, and accordingly restrain also that class of patients. I do not think that all the restraints we employ, amount to two per cent. per annum, with our 560 patients. I then certainly concur in the positive and absolute necessity of personal restraint. I hold that such restraints, however, should be employed as rarely as possible, and that the utmost care should be taken that it be not employed at all, except under the direction of the medical officers of the Institution. In the cases just given of Dr. Conolly, he did not intend to say that he would exercise no restraint, but what he did in that way was effected by holding the patient, certainly demanding an extraordinary corps of attendants; and my opinion is, that it would irritate and annoy the patients to such an extent as to do them infinitely more harm than any of the modes of mechanical restraint usually employed. I can not consent to any such proposition as the abolition entirely of mechanical restraint. I am satisfied that it would be an act of injustice to the patients themselves.

Dr. BRYANT. I have listened to the paper just read by Dr. Ranney, with both pleasure and profit. As Dr. Hughes has very justly remarked, "almost every case of insanity requires restraint of some sort." The hospital "itself is a powerful restraint." In violent, excitable cases, mechanical restraint is frequently necessary. Sometimes solitary confinement is sufficient, and sometimes medication in the form of hypnotics is preferable; often one or the other form is indispensable, and it may happen that all of these restraints combined may be needed. My opinion on the subject of restraint fully accords with the opinions expressed by those who have preceded me in their remarks.

Dr. SMITH. I believe the subject has been well nigh exhausted. This question has been very freely discussed at previous meetings of this Association, and the result, almost entire uniformity of sentiment, in all well conducted American Institutions for the insane,

"no restraint is the general rule, and restraint the exception; while for many years past the tendency in this country has evidently been to reach the point of least possible restraint, there have been very few, if any converts to the new restraint system in the true sense of the term. I was highly entertained by the Doctors' paper, and think he presented the subject very forcibly, and also the class of cases that require restraint, and doubt not his positions, will be endorsed by every member of this Association.

Before concluding, allow me to make a suggestion in regard to the application of mechanical restraint in the cases indicated in the paper. In my experience, patients who recover from attacks of acute mania, or any form of insanity, attended with paroxysms of intense excitement, more frequently have unpleasant recollections associated with the manner of applying restraint, and coercion in giving medicine, and other purposes, than all other causes combined. To prevent such results, sustain the reputation of our institutions, in short, to discharge our duty to the most unfortunate, and accomplish good on the largest possible scale, I regard it of the first importance that no restraint should ever be applied, nor coercion for any purpose resorted to, unless under the direct supervision of an assistant physician, whenever possible, or a supervisor in whom we have the most implicit confidence. Whenever practicable, I always much prefer one of my assistants to be present. It may be said, this is now the rule in most institutions; my object in alluding to it is, that we may never lose sight of its rigid enforcement. Human nature is too frail to leave these responsible duties to attendants alone, with patience almost exhausted, without the presence of proper restraining influences. We all know there is comparatively a mild manner of applying restraint to patients highly excited, and also an inhuman and barbarous manner. What I insist upon, is pursuing such a course as will enable us to know this unpleasant duty will always be discharged in accordance with the dictates of enlightened humanity.

Dr. GREEN. I stated there were four conditions in which we employed restraints. I mentioned only three. Another is the inveterate masturbator. I have a case in my mind now where life was not only preserved, but restoration of the person's mind secured from total wreck, by proper restraints. The poor creature was run down in mind and body, and utterly indifferent to the presence of any one. If possible, he would perpetrate this act forty times a day. He tottered like a drunken man in walking along the hall. I am sure he was restored to sanity, and that his

restoration was due mainly to restraint. In the cases of females where it was necessary to confine them in their rooms, further restraint was rarely necessary.

Dr. COMPTON. What form of restraint was used in the case of the masturbator?

Dr. GREEN. Nothing more than the mittens and belt.

Dr. RANNEY. In my paper I did not consider the conditions and methods by which we may reduce the employment of mechanical restraint to the minimum, but suggested that, in any discussion that might follow the reading, gentlemen would offer their views upon these points, or give us the results of their experience, and I regret they have not done so more freely.

Unquestionably the imperfect architectural arrangements of our hospitals tends to increase the use of instrumental coercion with us, or make its use more necessary than it otherwise might be. In a suitably arranged hospital upon such a plan, perhaps, as any experienced superintendent might devise, I can see how restraint might become only nominal. But as our hospitals are, it can not so well become so. Few or none of our hospitals have the requisite facilities for treating the different classes of patients, and the different forms of disease we meet with. In some, there are found arrangements of great excellence, that serve a particular purpose ; but it seems to me there is no one possessing great excellence as a whole, that may stand as a model to be copied. As a rule we have the inevitable corridor, ranging from moderate to extreme length, almost unbroken, save by monotonous ranges of doors leading into rooms of nearly the same size and appearance, all for the accommodation alike, of the excited and the depressed, the gay and the suicidal, the quiet and cheerful, and the restless and discontented, the noisy and destructive, and the demented and dirty, with so few opportunities for classification, that these different classes and forms can not be properly separated from each other or properly cared for. The most recently built hospitals in the country are not exceptions to this rule, and do not show an altogether creditable advance upon early models, and I suppose this will continue to be the case so long as our recommendations and plans are changed, or modified, or discarded, to suit the notions of some ambitious architect possessing little or no knowledge of such matters. The character and qualifications of our assistants, and especially the attendants who have the immediate charge of our patients during the necessary intervals of several hours between our visits, have much to do with the

question before us. In the average, young men and women who seek employment, and will become attendants for \$25 and \$15 a month, respectively, we can not expect to find very high qualifications, or much more than a passive interest in their work; but with the employment of persons of matured character, and such culture and spirit as will enable them to enter upon the high vocation implied in the care of the insane, with interest, self-denial and zeal, I am sure moral influences will predominate over force, in a greater degree than it is probable they now do. The services of such persons can not be obtained, it is true, without being paid for; but I am sure it will be much better in the end to pay well for faithful and intelligent assistance, and practice greater economy in some other direction. My experience leads me to believe that such an increase in the compensation usually paid the attendants we employ, as will make their position more desirable for continued service will secure to our patients better care and treatment. I have for years been an advocate for an increase of the compensation commonly paid attendants, and feel some satisfaction in the result. It will not only attract persons of higher character and aims, and be attended with a more faithful and co-operative discharge of duty, but it will secure lengthened service, which is so very desirable, when it is of the proper quality; and I think it would be wise if the Association, generally, would pursue a similar course.

In the application of medical treatment, we may not only do a good deal to promote recovery, but very much to obviate the use of restraint. I do not feel any fear of reproach for putting "chemical restraint upon a nerve cell," and I sometimes use freely, and with considerable success, the agents that have a powerful control over cerebral and motor activity. It should be said, however, that the effects of these agents should be carefully watched. The application of chloral, the bromides, digitalis, ergot, and the old vegetable neurotics, in the control and reduction of mental excitement and turbulence, deserves, perhaps, renewed attention, and I hope members will prosecute research in this interesting field, and report results.

Dr. GREEN. Do I understand the Doctor to say that it would be desirable to have every class of patients separate?

Dr. RANNEY. Not precisely that; what I desired to be understood to say, was that, with better arranged hospitals, affording better means for classification, and better facilities for treating the different classes of patients, and forms of insanity, we would be

able to reduce the use of mechanical restraint to the minimum. Certainly we do not need the same architectural design for treating the mild and harmless, that we do for treating the noisy and violent, or the demented and dirty.

Dr. GREEN. Exactly. My observation has been that the putting of the melancholy patients among the cheerful and noisy, is the best I can do for them.

Dr. RANNEY. I do not mean that a rigid classification between the melancholy and noisy patients is absolutely necessary, though I do not think the melancholy bear noise very well, but that special provisions may be made for different forms of mental disorder, which will lessen existing defects. I will instance the McLean Asylum, where there are three separate buildings for each sex, affording facilities for taking care of different classes and forms, an arrangement, I think, many will agree, has some decided advantages.

Dr. GREEN. I believe in the views of the gentleman in regard to attendants, but suppose some of the Board of Trustees insist upon the employment of attendants at cheaper rates.

Dr. RANNEY. No radical change of rates of wages can be brought about at once; but through this Association, an influence can be exerted which may gradually lead to important movements in this direction.

The PRESIDENT. I was sorry to observe, that, in the course of the discussion, some members apparently mistook the purport of the paper. It was not the question of restraint, *per se*, but the question was upon the subject of mechanical, as against manual restraint. I have no doubt that we are essentially a unit upon the question as presented by Dr. Ranney. There has certainly been a vast change in our hospital practice during the past twenty years, since I entered this Association. I believe that in the best conducted hospitals in this country, mechanical restraint has been reduced almost, if not quite, to the minimum. I have no doubt that a better rate of wages will secure a better class of attendants, and that this, with the better construction of our hospitals, will enable us to reduce restraint, whether mechanical, or manual, quite to the minimum.

I suppose if anything has been settled to the satisfaction of the members of this Association, it is that, in this country, our patients, by original temperament, or by some inherent quality in the universal Yankee, will not submit to the control of any person they consider their equal or inferior, as readily as to that of me-

chanical appliances. I was gratified when visiting the institutions in England, the few I did visit, to find that almost universally,—certainly in four-fifths of the cases,—the Superintendents expressed themselves in favor of mechanical restraint, and singularly enough, the Superintendents lay the blame of non-restraint upon the Commissioners in Lunacy, and the Commissioners in Lunacy throw it back upon the Superintendents. They say the Superintendents are emulous, one of another, to report the smallest number of restraints during the year. Certainly in my presence, and that of an American medical friend accompanying me, almost without exception, they expressed their preference for mechanical restraint, and hoped they would have it established there.

From an experience of over twenty years, and from a careful, and I hope by no means superficial study of this question, I firmly believe, that, in the future, the practice of our best American asylums now, will become the governing rule of Christendom.

Dr. RODMAN. Did you visit Conolly's Asylum?

The PRESIDENT. I did.

Dr. RODMAN. What is the practice now?

The PRESIDENT. That was the only Hospital that I visited where I found any difference at all as to mechanical restraint. There they were using, so far as I observed, the attendants' hands and the closed room.

Dr. RODMAN. If the change begins there, and ends there, it certainly must be apparent to every member of this Association, that the days of non-restraint have died out.

The PRESIDENT. They told me that the adoption of non-restraint was not due to Dr. Conolly at all, but through the Superintendent of the female department, a modest and retiring man, who attempted to abolish mechanical restraint, and succeeded. Seeing the result in his hands, Dr. Conolly adopted it and became its champion and high priest.

Dr. RODMAN. Dr. Conolly has the credit as the apostle of non-restraint.

The PRESIDENT. Not only the apostle of non-restraint, but the apostle of humanity too.

An invitation was received from General Penny-packer, U. S. Commandant at this place, to visit the U. S. Barracks, which was, on motion, accepted, and referred to the Committee on Business.

On motion, the Association adjourned to 10 A. M., Wednesday, May, 20th.

The Association spent the evening, socially, at the residence of Dr. T. A. Atchison, President of the Board of Trustees of the Tennessee Hospital for the Insane.

MAY, 20, 1874.

The Association was called to order at 10 A. M., by the Vice President.

The minutes of the proceedings of yesterday were read and approved.

The Secretary read invitations from Dr. Wm. M. Wright, Superintendent of the State Prison, and Mr. S. T. Caldwell, Superintendent of Common Schools, to visit the Institutions under their charge, which were accepted, and referred to the Committee on Business.

The Secretary also read a communication from Dr. Wm. B. Hazard, relative to the St. Louis County Lunatic Asylum.

The Committee to audit the Treasurer's accounts reported that they had attended to that duty, and found the accounts correctly cast, and properly vouched. The receipts from the payment of membership dues and the sale of publications have been four hundred and sixty-two and ninety-five hundredths dollars, (\$462,95,) and the expenses of printing, reporting and postage, have been four hundred and twenty-five and seventy-five hundredths dollars, (\$425,75,) leaving in the hands of the Treasurer thirty-seven and twenty hundredths dollars. The Committee recommend that the membership fee for the present year be five dollars.

MARK RANNEY, Chairman.

The Committee on the time and place of next meeting asked an expression of the opinion of the members

of the Association, in regard to the place of next meeting, and, after discussion, an informal vote was taken, and California was declared to be the choice of the Association.

The President read from a letter of Dr. John S. Butler, expressing his regret at being unable to attend this meeting, and his kind and warm interest in the welfare of the Association. The Secretary read a biographical sketch of Dr. Charles E. Van Anden, prepared by Dr. James W. Wilkie.

Dr. Charles E. Van Anden was born in Auburn, N. Y., January 9, 1819, and with a few brief absences spent his whole life there. He was the son of one of the earliest settlers and most respected citizens of Auburn. He entered Union College in 1835, and held during his entire college course, a highly respectable position in his classs, graduating August 9, 1839. He there laid the foundation of those refined and scholarly tastes which characterized his later years, and which were so well known and appreciated by his more intimate friends. After leaving college, he spent some time as a private tutor in the city of New York, and later as a student of theology, with the late Dr. Croswell, then of Auburn. As a student of theology he won the love and esteem of that distinguished and warm hearted divine. For reasons quite satisfactory to himself, he gave up the study of theology and became a student of medicine, in the office of Dr. Lansing Briggs, of Auburn, and received the degree of Doctor of Medicine, at the Buffalo University, in 1850, having previously attended two courses of lectures at the Geneva Medical College.

He then opened an office for the practice of his profession in Auburn, and early attracted the attention of Dr. Joseph T. Pitney, then in extensive practice as a surgeon, and won from him his highest esteem professionally, as well as his warmest personal regards. Dr. Pitney's love and appreciation of him continued through life.

In 1852 Dr. Van Anden was called to take charge of the Cholera Hospital at Buffalo, at a time when that terrible malady was making great havoc in that city. After consulting with his friends in Auburn, he came to the conclusion that it was a call of duty, and unhesitatingly entered into the midst of the pestilence, and by

his calm and dignified Christian deportment, and the wise exercise of his skill as a physician, won the esteem and approbation of all with whom he came in contact.

In 1857 he was appointed Physician to the Auburn State Prison, and in 1859 was appointed Assistant to Dr. Edward Hall, then Superintendent of the State Lunatic Asylum for insane convicts at Auburn, and on Dr. Hall's retirement in 1862, succeeded him to that responsible position. This position he held until 1870, eight years. Since that time Dr. Van Anden devoted his attention to the practice of his profession in Auburn. Modest, sensitive, and distrustful of his own abilities, he lacked that energy of purpose, and those aggressive qualities so requisite to success. Hence the self-advertised quack, pushing his own claims, was quite likely to outstrip him in the race for popular favor. But a work placed in his hands was performed with the greatest intelligence and fidelity.

In his manners he was dignified, but courteous, his affability and kindness winning the hearts of those with whom he was most intimate. In general knowledge, in sound judgment, in all the graces of refinement and scholarly cultivation, Dr. Van Anden excelled. In private life, of the greatest purity of character, he maintained a spotless reputation as a public officer. He died a poor, but honest man.

In these times of defalcation and betrayal of trust, it is refreshing to be able to point to one professional brother, and say, "He was faithful."

His economy in the management of the financial affairs of the Asylum often savored strongly of parsimony. As his successor, I found much embarrassment, with a sense of duty to the inmates, in keeping the expenses of the Asylum within the limits of former expenditures. At the time of his death Dr. Van Anden was a member of the New York State Medical Society, and of the Medical Society of Cayuga County, in which he lived.

His death occurred October 19, 1873, and was the result of a peculiar and distressing accident. Eight days previously, as he was about to retire for the night, he unconsciously drew into the oesophagus a rubber plate of triangular form, about an inch in diameter, to which was attached a single false tooth. After making several unsuccessful attempts to remove it with the oesophagus forceps, he applied to his former preceptor, Dr. Briggs, who also failed to detect its location with the forceps and remove it; the next morning he introduced a probang, and supposed he had dislodged and pushed it forward into the stomach. Violent inflam-

mation supervened, with swelling, and inability to swallow. Dr. E. M. Moore, of Rochester, visited the patient on the fourth day, when the inflammation and swelling were so great, that he deemed an exploration of the œsophagus impracticable. His strength was sustained by injections of beef tea, &c., until the eighth day, when profuse hæmorrhage took place, from which he sank and died.

An autopsy revealed the plate concealed just within the œsophagus, a sharp angle of which had made an incision about one half an inch in length through its posterior wall. Near the base of the right lung was a gangrenous mass, involving to a considerable extent the tissues of the lung itself, and which was the seat of hæmorrhage. In attempting to swallow, liquid aliment was forced through the aperture in the œsophagus, which infiltrated itself through the cellular tissue, and gravitating to the point mentioned, had excited inflammation, that resulted in gangrene and death.

Dr. SHEW. I would like to add simply a word to what Dr. Wilkie has said respecting Dr. Van Anden, with whom I was associated for a period of eighteen months. My first professional service was at Auburn, as an assistant to Dr. Van Anden, and when I look back upon those enthusiastic early professional experiences, it is natural that I should have a feeling of sadness when I think that he is gone. It was his scholarly and friendly assistance, advice and direction, which added very much to my happiness and progress in this specialty.

Dr. Van Anden was in many respects a very peculiar man, but he was genial, friendly, conscientious, and always earnest in his labors in this specialty. Those who knew him simply as a casual acquaintance, could not draw aside the veil of quiet dignity which always seemed to hang around him, and see the wealth of real friendship and genuine manliness which was hidden beneath. With a more decided will, with the energy which many other men possess, he would undoubtedly have stood very high in the profession generally, and among the foremost in our specialty; but, as Dr. Wilkie has said in his paper, there was a decided lack of energy, with a love for ease, which unfitted him to be successful as a general practitioner, or to make decided progress in his specialty, particularly in the position which he occupied, where political influences, and considerations of economy had control.

I have in my possession a photograph of Dr. Van Anden, perhaps the only one in the hands of the members of the Association, and it might be interesting to you and to others to see his pleasant face.

The PRESIDENT. It is the custom of all Associations to appoint a Committee to draft resolutions expressive of the sense of the body. Is it the pleasure of the Association that it be done in this case.

On motion it was resolved that such a Committee be appointed.

The President appointed Dr. Shew on the Committee, who subsequently offered the following resolutions:

Resolved, That the Association has received the announcement of the death of Dr. Charles E. Van Anden, formerly Superintendent of the Asylum for Insane Criminals at Auburn, N. Y., and for many years a distinguished member of this Association, with the deepest concern.

Resolved, That apart from high professional reputation, always enjoyed by Dr. Van Anden, both as a practitioner of medicine, and Superintendent of the Asylum, his excellent private character, his many Christian virtues, his uniform courtesy and honorable intercourse with his fellows, have endeared him to the members of this Association, as well as to a large circle of private friends.

Resolved, That while the Association deeply sympathize with his family in their bereavement, they, with all his other friends, feel confident that when time has softened the sadness of parting, the memory of his life will be an enduring source of comfort and pleasure to those from whom he has been taken away.

Resolved, That a copy of these resolutions be presented to the family of our late associate, signed by the officers of the Association.

Dr. Hughes then read a paper on the "Psychical and the Physical."

Dr. GREEN. I have been very much interested in the paper of Dr. Hughes, and am grateful to him for his contribution, but I do not feel like making any special comments upon it.

Dr. COMPTON. It would be impossible for me to discuss the merits or demerits of the paper just read by Dr. Hughes, without sacrificing more brain cells than I can very well dispense with just now. I can only compliment him on its production, I am sure it must have required a great deal of laborious thinking on his part, and such papers, whether we entirely agree with them or not, are

creditable to the Association. It is no small matter to engage in intellectual combat with such scientists, as Spencer, Tyndall and others, and I sincerely congratulate Dr. Hughes upon his gallant endeavor.

Dr. WALLACE. (Texas.) A new member of this body, I beg to be permitted to inquire what disposition it is proposed to make of this paper, I mean, is it to go to the publishing committee, and, if published, to be considered as reflecting the views, and as having received the endorsement of this body. It is no part of my purpose, as it is not in my power, to attempt to go over the ground occupied by the paper. I do not wish to discuss the merits of the positions assumed, but simply to submit, that if it is the purpose to publish the paper, with the endorsement of the Association, I dissent from it, *toto caelo*. I do not think such papers ought to go forth with the *imprimatur* of the Association.

The PRESIDENT. The paper is in the hands of the author, and does not necessarily carry with it, if published, the endorsement of the Association.

Dr. STEVENS. I do not propose to discuss the paper at all. I believe I understand the views as presented by my friend, Dr. Hughes, and I think they are in accordance with the popular sentiment of the day, that is, that behind all matter, outside of all matter, there is an immaterial something called mind. This he maintains as a leading idea, and I do not pretend to deny it, or to say that the doctrine is objectionable. I do not see that it would injure or harm the good name of this Association to endorse the sentiments presented, though it is well understood that the Association is not responsible for the sentiments of any one. That the paper expresses my opinion I will not now state, in fact, I must say, that my opinions on these subjects are not well enough defined to allow me to designate them by a name.

I have always made it a rule to adopt that which comes to me with the greatest amount of evidence. In truth, it is almost an axiom that we must form opinions on all subjects, just in accordance with the amount, or the nature of evidence presented to the mind. So far then as I am able to examine these propositions by the light of science, it appears to me that mind is not only dependent upon matter for its manifestations, but appears, as Maudsley's reasoning impresses me, to be a function of matter, possibly in some sense, a secretion of matter. It is easier for me to conceive of the eternity of material organization upon which mind shall depend, than to conceive of the existence of mind independent of organization.

Dr. WALLACE. Does Maudsley say that mind is a secretion of matter?

Dr. STEVENS. I do not say that he does, but I have in memory what he says in regard to the attenuation of matter, its transformations and metamorphoses, and corresponding with these changes in form, the changes in modes of force. We know that in muscular action there is a disintegration,—a combustion of tissue, a physical and chemical change; in the brain there is the same process, corresponding in degree with the amount of mental activity, or with the energy, or intensity of action. Our physiologists teach us that these little brains, called ganglia, belonging to the system of organic life, the sympathetic system found on each side of the spinal column, are magazines for storing up nerve force, and that by some action of the nerve cells in accordance with their organization, this force becomes active in those functions designated as excito-motor, reflex, and so on. This chain of ganglia constitutes the quaternary center, as represented by Maudsley. Do we not find in reflex action, or in excito-motor action, something so nearly akin to mental action or intellect, that we know not where to draw lines of demarkation? I hope we may hear from others, who have given these questions more attention than I have, their views in regard to this truly elaborate and interesting essay.

Dr. HUGHES. I would like to hear the objections of the gentleman from Texas, to the paper. I do not know that I have made myself clear on the subject.

Dr. WALLACE. I beg to say that my objections are not based upon the positions assumed especially, but upon the idea of spreading upon our minutes, and embodying in our proceedings such recondite, obscure abstractions, about which there is, as there must ever be, at least, until our methods of investigation shall approximate more nearly in subtlety of research, the subtlety of the subject to which they are applied, such diversity of opinion; so that it occurs to me to be out of place, to publish matter as setting forth the views of a body of men in regard to which probably no two entertain precisely the same opinions.

The PRESIDENT. It has never been the practice of this Association to endorse any of the opinions elaborated in any of the papers presented, of this character.

Dr. WALLACE. The same matter substantially came up last year, in the American Medical Association, in connection with which Dr. Bell, of New York, observed, that papers, published as part of the proceedings of a body, carry with them, to the general

reader at least, the idea that they received the endorsement of such body, in which views I entirely concur, and it is this I would avoid.

The PRESIDENT. I have nothing to say on this able paper, except to express, for the Association, thanks to Dr. Hughes for the effort he has made for our enlightenment and pleasure.

I see no difficulty myself, in regarding mind as the result of the disintegration of matter, as a brain force, if you consider it as material merely, and not as the immaterial and immortal part of us which must survive forever. I do not know that there is any meaning in it at all; but the Commandment, it seems to me, comprehends and expresses the whole, drawing a distinction between mere mind and the soul; and in this view of it I never have any difficulty on the subject, "Thou shalt love the Lord thy God with all thy heart, and with all thy *soul*, and with all thy *mind*."

Dr. COMPTON. Before the paper is disposed of, since the impropriety of its publication has been suggested, I desire to express the hope that it *will* be published, and that it will appear in our JOURNAL OF INSANITY, as papers usually do. I do not know by what rule, or how they get there; I know this, however, that papers read before this Association, are frequently published in the JOURNAL. We have no Committee on Publication, I believe, and I presume it is a question with the author and the editor. I repeat, that for one, I would be glad to see it in print, inasmuch as the Doctor thought proper not to read the whole of it.

Dr. HUGHES. I have read the last of it.

Dr. COMPTON. I am sure that some of us might engage in its perusal, with profit. In the absence of a sermon, it would make admirable Sunday reading.

The PRESIDENT. There seems to be some difficulty as to the disposition of papers. It has been the custom of the Association never to assume the control of them at all. The member who presents one here, has it and controls it. He can publish, if he pleases. When he presents it here, he has, in no jot or title, given up his right of possession in it.

Dr. WALLACE. With this understanding, I withdraw my objections, and have only to add, that what I have said had its origin in ignorance, a thing that is not unfrequent in this world.

Dr. HUGHES. Mr. President: This subject is an extensive one, and I feel that I have not done justice to it, and, perhaps, have not made myself understood. The paper has grown out of the able productions of Herbert Spencer, Maudsley, Bain, Tuke, and other

writers in the field of psycho-physiology. My mind was, for a long time, in confusion relative to the psychical and the physical in man's nature. So many facts have accumulated of late years, that it will not do for us to entrench ourselves behind the teachings of the past, and deny that mental manifestation is always accompanied with cerebral disintegration. Maudsley is the clearest and most satisfactory writer of the age upon psycho-physical phenomena, and he comes nearer getting to the actual physical dwelling place of thought and mental action, than any other writer in any age of the world.

We can not tell precisely where thought ends, and disintegration begins; but we do know that when we discover one, we find the other.

The only open question is, whether cerebral disintegration is the precedent, the consequent or the accompaniment of mental action. It is probably all the three; exciting mental action, resulting from mental impression, and always accompanying mental manifestation.

I subscribe to all the facts taught by Maudsley, and in the paper I freely quote his phraseology.

Cerebral disintegration is as much a condition of mental manifestation, as muscular decay is of muscular contraction. As physicians, we are in certain sense materialists; science in all its conclusions is necessarily material. It deals with tangible objects, with matter and material forces. It investigates and examines through the material senses, and with material agencies. When we look into the mind of man, we can discover nothing, except through his physical organism. What we call his mentability is the immaterial sum of so much disintegration. When we use mental influences to bear upon the insane mind, we employ them to regulate the abnormal and irregular cerebral disintegration, and so we use our remedies which we select from the *materia medica*.

When the cerebral disintegration is normal, the mind manifests itself rationally. Our improved therapeutics consists in controlling this disintegration; for this reason sleep is induced and tranquilizing agents are employed. We treat insanity most scientifically and successfully, when we manage it on the principle that it is irregular and abnormal cerebral disintegration, and control it by these agencies, which, acting directly upon the cerebrum, or indirectly upon it through the general system, tranquilize and restrain the brain. "A concourse of sweet sounds," a hypnotic draught, or any of the so-called material or immaterial agents, which we are accustomed successfully to employ in this disease, may fulfill the same indications.

The President announced that the next business in order, was the reading of the "Continuation of the History of the Association," by Dr. Curwen.

Dr. CURWEN. I have embraced the opportunity, during the past winter, of bringing the history of the Association down to the present meeting, and I have also connected with it a continuation of the changes made in the different hospitals for the insane in this country.

Members will please note that it contains the names of the members present, and the principal items of interest which were transacted, at each meeting of the Association. If any errors have crept in, members will please so state as soon as they notice them.

Dr. Curwen then read the history, which will be published in pamphlet form at an early day, embracing the whole history from the commencement of the Association down to and including the present meeting.

After reading a part, the further reading was postponed for the present.

The Secretary announced that the order of business for this afternoon, would be to call on, and to pay their respects to the Governor of the State at 3 p. m., and examine the capitol of the Commonwealth; and at 5 p. m. call in a body and pay their respects to Mrs. James K. Polk; and hold a session this evening.

On motion, the Association adjourned.

The Association was called to order at 8 p. m., by the Vice-president.

Communications were read from Drs. Kirkbride and Ray, expressing their interest in the Association, and regretting their inability to be present.

The committee to which was referred the selection of the next place of meeting, reported in favor of Stockton, California, and the time, the third Tuesday of May, 1875, which was unanimously adopted.

The secretary reported from the Committee on Business, the order of proceedings for Thursday and Friday.

On Thursday, have a session in the morning, until twelve o'clock; then the Association will proceed, under the conduct of Dr. Callender, to the Hospital, returning to the city so as to hold a session in the evening.

On Friday, have a session, and adjourn in time to visit the residence of Dr. Cheatham, at 11 a. m. Visit the U. S. Barracks, under the charge of General Pennypacker, at 5 p. m., and hold a session in the evening.

After some discussion on the report of the Committee, the Association listened to some remarks by Dr. Curwen, on the "peculiar manifestations of insanity in families, and on the causes of the difference in mental development in different members of the same family, and also on the prevention of insanity."

In illustration of the remarks made by Dr. Curwen, he cited a large number of cases, from the records of the Hospital, under his charge, of insanity in families, under four different heads.

1. Parents and children.
2. Brothers and sisters.
3. Collateral branches.
4. Man and wife.

Under the first head, after calling attention to a number of cases, where the insanity of the children was clearly traceable to the parents, several cases were cited in which the insanity was first developed in the children, and after a varying interval, in one case twenty years, it appeared in the parent. In three of these cases, the insanity appeared in the son, and afterwards in the mother, and the type of the disease was very similar in both.

In the case of brothers and sisters, a large number of cases were cited of the development of insanity in brothers or in sisters, or in both brothers and sisters,

with some remarks on the peculiarity of the resemblances or differences in the members of the same families. Under the head of the collateral branches, many cases were referred to the peculiar characters of the insanity, as developed in the different branches of the same family, and also in several cases reaching through several generations in near or remote connections.

Two cases were cited of the occurrence of insanity, in one of which the insanity of the wife was caused by the care and anxiety for the husband, and in the other where the trouble, consequent on the insanity of the wife, gave rise to an attack of violent mania in the husband. In both these cases of sympathetic insanity, the form of the disease was acute mania, and they soon recovered.

Remarks were made on the differences in the mental constitution of members of the same family, and the opinion was expressed that these differences might be traced to some peculiarity in the mental or bodily condition of the parents, at the time of conception, or to some change which might take place in the system of the mother during gestation. It is known that many cases of idiots may be traced to intemperate habits in one or both parents.

The following case was cited as illustrative of the effects of ill health, in the mother, during gestation, taken from the *Elinburg Quarterly Journal*:

"The parents of S. S. are people in a very respectable position in life. They have a family of twelve children. Neither of the parents themselves, nor any of their relatives, nor any of their children, with the exception of this girl, have ever shown any symptoms of mental disorder.

While the mother was pregnant with this child, she suffered from a severe attack of Asiatic cholera, from which she barely escaped with her life. During this time she showed some symptoms of mental disorder. She entirely recovered her former health, both

of body and mind, after her confinement. The child S. S., with whom she was pregnant, while in this state of ill health, has from birth been quite different from the rest of the family. The girl's bodily health has been good, but her moral sense deficient. As a child she was difficult to manage. On reaching the age of puberty she displayed want of control over her sexual propensities. She consorted shamelessly with the male sex, and was the mother of an illegitimate child at the age of fifteen. She refused to say who was the father of the child. Her character seems, indeed, bad throughout. She would not engage in any useful occupation. She avowed her hatred of her family; as her father well expressed it, 'her conduct, after the birth of her child, was perfectly unbearable, and her language was anything but dutiful and daughter-like.' She used foul language to her father and mother, threatened to kill her sister and commit suicide."

References were also made to the different manifestations of nervous disease in different branches of the same family, especially in one, insanity, in another, &c.

The remarks on the prevention of insanity, referred to the necessity of physicians inculcating on all those whom they might be called on to treat, or advise, of the necessity of strict adherence to the principles of mental and physical hygiene, and the proper development of the mental powers in those inheriting an insane temperament, by careful training and education, more especially with reference to the proper development of the bodily system, particularly in securing regularity of habits, ample and regular sleep, and the avoidance of every thing which could have a tendency to undermine the general bodily health.

Especial care would be needed to have the mental powers properly trained, and the moral should be carefully and sedulously cultivated with the intellectual, and more attention given to securing a good, sound, mental condition, than the development of any one particular peculiarity in the individual's mental constitution, or the cultivation of one class of powers in preference to the other.

Dr. EASTMAN. One or two interesting cases I have known, occurred to my mind while Dr. Curwen was speaking. A lady, residing at Washington, was the mother of a large family, was insane at the birth of the first child, and never entirely well thereafter. She was at different times an inmate of the several hospitals for the insane. I think insanity had shown itself in her ancestors. The children grew up dutiful and capable. The young men learned trades, and were steady and industrious. About the year 1866, the oldest child, a young man of twenty or twenty-one, was brought to the Hospital with acute mania, and died in a few weeks. In about two years the second child, then a young man of about the same age as the first at his death, died at the Hospital, a few days after admission, of typho-mania. In about two years more, the third son, having for a few days shown some symptoms of mental derangement, committed suicide. It will be interesting to follow the histories of the remaining children.

There were simultaneously committed to the Worcester Hospital, a few months ago, a mother and two daughters, who had been keeping house together. They belong to a family with insane tendencies. It appears that one of the daughters, who had the strongest mind of the three, first became insane, and adopted some peculiar views regarding her identity, and the other sister and mother seem to have been led by sympathy to adopt the same views. When they came to the Hospital they all entertained the same very peculiar delusions.

A unique case of a husband and wife being affected with general paralysis, has come under my notice. In June, 1872, a gentleman was admitted who had been affected with this disease about six months, and who is now dead. The first time his wife came to visit him, which was soon after admission, it was plainly evident she was affected with the same disease. She is now in a Hospital in a neighboring State, and probably will not live six months. They had a son of about eighteen or twenty years of age, and a daughter of about ten, of whom I mean to keep watch, if possible. I have under my care a case of a lad, about seventeen years of age, in which the mental condition of his mother before his birth, seems to have stamped, in a peculiar manner, the general character and the peculiar insane manifestations of the offspring, and is somewhat similar to the case Dr. Curwen mentioned. For two years before the boy was born, his mother was in a peculiar condition of religious distraction of mind, it could hardly be called insanity. About the time of his birth these feelings disappeared. This boy

has always been peculiar and different from all his older brothers and sisters. He has, almost from childhood, had a fondness for abstruse theological questions. Within a year or two he has attempted to take the lives of several persons, under the influence of the idea that, inasmuch as by the teachings of the Bible, we should prevent all the suffering we can, and inasmuch as of those who are born, a large portion are to be doomed to eternal punishment, it is right to prevent the birth of children by taking the lives of those likely to become parents.

Dr. RANNEY. In the course of my professional experience, I have met with several instances where insanity in children has been developed, prior to insanity in one of the parents. The hereditary element in such cases no one can overlook, or it may be a constitutional "instability of nervous elements," from disregard or violation of organic laws, now first breaking out into overt disease. In a few instances, also, I have observed marked peculiarities distinguishing one or more members of a family of children from others, in such a way as to suggest some hereditary or strong maternal influence, with co-existing nervous disorder, or, perhaps, a mild, but well-enough pronounced melancholia in the mother. In such cases, it is needless to say, any fault of training, or adverse influence, is exceedingly liable to be followed by insanity. It seems probable that hereditary influences become intensified in succeeding generations, and thus afford an explanation of a hereditary influence operating to give rise to insanity in children, in some instances at an earlier period than in the parents.

Esquirol says, "sometimes it is to the maternal womb that we are to look for the first cause of insanity," and remarks that many mothers who were pregnant, during the various periods of the French revolution, became mothers of children who were peculiarly liable to become insane, through the influence of slight moral or physical causes.

Dr. Combe and Dr. Morel also have recorded instances in which fright, or some moral shock to the mother during pregnancy, has been followed by insanity in the offspring, in such a way as to show a striking relation between cause and effect; and Dr. Maudsley gives prominence to "baneful influences during uterine life," as among the causes of insanity in early life. Instances have come to my notice, of insanity in the child of an intemperate parent, followed by incurable insanity in that parent at some subsequent period.

The subject of maternal influences upon offspring, so often overlooked or forgotten, and hard to be recalled, is an interesting one,

deserving of much careful inquiry; and it seems most probable, that careful inquiry will establish a more wide-reaching and deeper effect upon the race, than has heretofore been supposed to exist.

I have noticed the same marked resemblance Dr. Curwen speaks of, in the general characteristics of mental derangement in individuals of the same family, or different branches and successive generations of the same family—melancholia, for instance, and a suicidal tendency in at least three generations,—in one of which the father, in the second generation, committed suicide, two or three years subsequent to the suicide of his son of the third generation.

Dr. EVERETT. I presume that the records of every hospital for the insane, as well as the observation of every medical man, who has given much attention to the subject, would confirm or supplement the facts stated by Dr. Curwen.

No one interested can have failed to notice the marked depravity of organization which characterizes the insane of our hospital wards. I have come to believe that there is an organic proclivity in a large majority of cases of insanity. Whether this proclivity is the result of ancestral perversity, or an arrest of development of the individual after birth, by any of the deteriorating influences to which multitudes of children are subjected, may be sometimes difficult to determine. It is not necessary to establish the fact of insanity (as understood by the community,) of ancestors, to account for, or trace to its origin this heredity of organization; as it may have manifested itself in the ancestor, in some of the many related exhibitions of defective or depraved organization, such as apoplexy, epilepsy, hysteria, neuralgia, eccentricities of disposition, talipes, strabismus, stammering, &c., &c., with which we are all familiar; besides the indefinite, often unrecognized degree of imbecility between idiocy and ordinary intellectual capacity.

But we have *facts* enough on this subject. The question with us is, or should be, what remedy? It is unfortunate, (and yet not wise to say "unfortunate" with vision so limited as ours must be,) that civilization develops, or cherishes the elements of its own deterioration, and perhaps its final arrest through a deterioration of the race.

I believe in the doctrine of evolution and natural selection. Civilization, instead of aiding nature in her tendency to select the better and neglect the inferior, outrages the law to the last degree, by protecting and perpetuating organic depravity, which, uncherished would, by and by, disappear. Science, religion, love, all the higher

sentiments of our developed minds are put into active service, with a view to succor, protect, and prolong the existence of weakness, imbecility, and organic depravities of every grade and nature. We call this humanity, charity, benevolence. Worse than this, we permit all classes and grades of being in the human form, to marry and reproduce their various deformities. We fail even to inflict capital punishment upon criminals, (whose crimes are incident to perverted organization, more frequently than otherwise,) an auxiliary by which, in times past, nature may have received material aid in her process of "selection,"—so that it becomes a very difficult problem of social science, how to arrest this stream of organic depravity which threatens more and more the race. The briefest way, perhaps, would be to say to the woman, "Get thee to a nunnery," and castrate the man.

Dr. STEVENS. It may be remembered by members of the Association who were present at the meeting in Madison, that I narrated the case of Joseph Fore, a young man who had murdered his mother-in-law, by the name of Beach. Fore had lived in Shelby county, Kentucky. His father was a very singular character, and was thought to be insane by his neighbors, or at least a very singular and eccentric man, so peculiar in all his ways, that his friends had to put up with a great deal, in associating with him. A witness who knew the family, stated that he believed the father insane. He also stated that he had a brother who was insane, and an inmate of the Asylum at Washington. Dr. Nichols said that Fore had a relative now in the Asylum under his care.

Dr. RODMAN. The man who was said to be a near relative, is a very remote relation, not nearer than a third cousin.

Dr. STEVENS. I think he said an uncle.

Dr. RODMAN. About the third or fourth cousin, nothing nearer.

Dr. STEVENS. That man is in the Asylum at Washington. You remember that I read an article in a newspaper, predicting that Joseph Fore would kill himself, or some other person. Since that time he has tried to kill his wife, was tried for the crime, and is now sentenced to the Missouri Penitentiary for ten years. He has not yet been removed to the State Asylum. I mentioned this as an instance of pre-disposition to insanity, or rather as one in which there existed the insane neurosis. I testified that I believed him insane, and others testified differently. I had charge in the Asylum at one time, of two sisters, who were insane. Their parents were very ordinary people, but their daughters were well educated. The two daughters went into a shop, one became insane, appar-

ently from over-work, the other from sympathy with the sister. The first case recovered, the other is still in the Asylum. I know of another case in the Asylum somewhat similar to the one spoken of, a man and his wife, one in one ward, and another in another ward; both are cases of acute mania.

Dr. RODMAN. The eccentricities of the father of young Fore were not decided by any means. He was quick tempered, giving away occasionally to fits of passion, but not more frequently than hundreds, that one, in this country, constantly meets who are never thought insane, nor is there reason for supposing them so. He was temperate in his habits, managed a large business successfully, was esteemed a good citizen. I do not regard the principal witness who testified in the trial of this young man, for the killing of Beach, as sufficiently well informed in matters involving the question of unsound mind, to make his statements or opinions in any way valuable. He lived in the neighborhood of the family of Fore, and knew them, it is true, but I think his assertions of hereditary taint—unconsciously to him, of course, I must say—were colored by a desire to act a kindly part by the son of an old neighbor, and friend. I think that Fore was insane, but that his insanity was hereditary I do not believe. I am familiar with the history of his father, his grandfather, and most of his kindred, upon the paternal side, and knew none to whom he is closely related, who ever gave evidences of unsound mind. His grandfather, a man of unusual good sense, died of apoplectic paralysis, at an advanced age, seventy years or more. Dr. Stevens speaks of a patient who is now, I believe, and has been for some years an inmate of the Government Hospital, for the insane, at Washington, as the uncle of Fore. He is not an uncle, but a cousin in the fourth degree only, and his mental infirmity can be readily accounted for by his habit of constant inebriety for many years before his confinement became necessary. I am by no means as familiar with the circumstances of the killing of Beach, as Dr. Stevens, who has given them special study, and was an expert witness at the subsequent trial; but I know enough to warrant me in saying, that I think that Fore was insane at the time of the homicide, and that his acquittal was the proper sequence of the testimony given at the time; but that his unsoundness was hereditary, I not only doubt, but do not believe. Had the advice given by Dr. Stevens been followed, as most unquestionably it should have been, Fore would not have perpetrated the offense for which he is now serving a term of ten years in the State's Prison, but would have had his proper place-

in a hospital for the insane. The case of Fore gave rise to widespread comments; it was one of the celebrated cases in Missouri, and well deserves a thorough discussion by the members of this body, if time allowed.

Dr. LETT. I would like to mention a case which came to the London Asylum, about eighteen months ago. A young man, thirty-five years of age, after having been engaged in a day's chopping in the woods, was suddenly seized with an attack of acute mania, with religious delusions; two days after, his sister became insane, having the same delusions and similar excitement; in a short time, the mother also followed suit. All three became insane within a week, and were admitted to the Asylum, at the same time, the delusions of each, were identical, they were all violent, and refused food.

The mother died from pneumonia in a few days after admission, the daughter had a severe attack of erysipelas, which carried her off in a short time, the son recovered in a few months, and has been apparently well ever since. Nothing of the previous history of the father or mother could be ascertained.

Dr. SMITH. I doubt not we have all been highly entertained with the interesting cases given by Dr. Curwen. In every institution of long standing, I suppose, if not parallel cases, those somewhat similar in character have been observed. This has been true in our Institution, members of the same family insane, brothers and sisters. Most of these, however, I think, were clearly hereditary. It is often, as we all know, exceedingly difficult to obtain from friends, a definite and reliable history of our patients, and, as often, a disposition is shown to conceal facts that would indicate hereditary pre-disposition. I have not the least doubt that various causes may so operate upon the mother, during gestation, as to effect her offspring. The observations of the past, I think, have fully established the correctness of this position. The remedy for many of the appalling evils referred to, is the most difficult of application. While Dr. Everts', if carried out, would certainly be successful, I am not prepared to endorse one quite so severe.

As members of this Association, all we can do is to inculcate and diffuse, as far as practicable, correct views upon this subject, and especially in regard to marriage. If, in the discharge of a duty so important, we could prevent many of the lamentable results to which our attention has been directed, would we not truly be benefactors of our race?

Dr. GREEN. I have had some experience with these peculiar subjects, I suppose as others have, in charge of such institutions for any length of time. I have known of numerous instances of brothers and sisters, husband and wife, and father and mother, being brought to the Asylum. I have failed to see anything like that same uniform identity of deportment and delusions, that some of my brethren speak of, as coming under their observation. I am not prepared to say, whether, in these persons, there did exist an hereditary taint, or whether their ancestors, either immediate or remote, had been insane, or in such a condition as to result in insanity to their posterity, for in many cases, people are brought to the Asylum without the party bringing them, knowing much about them. Therefore we are unable to get information as to the case, that is a satisfactory history.

The influence of disease in the mother, upon the child, previous to birth, is very well understood. How far that may operate to the production of insanity in the child, I think is very little understood. As remarked by Dr. Smith, I think all we can do will be to give the best advice possible, in reference to the contraction of marriages between parties, and the proper development of the physical, rather than the mental condition of the child in whom we have any reason to suspect the existence of this liability. I have been in the habit of doing that to some extent in my reports, and I think we should all do that. Put the people on their guard as to the training of children, morally and physically, and I think we have done our duty, and about all we can do.

Dr. HUGHES. The cases related by Dr. Curwen are exceedingly interesting. Of course they are prototypes of cases in all our hospitals, cases of insanity manifested in the child, and then in the mother. The Doctor relates a great many of these cases. They are confirmatory of the view expressed by our venerable and able member, Dr. Ray. You all recollect that he takes the responsibility of asserting, in that great work of his upon the Medical Jurisprudence of Insanity, that insanity is usually the product of two generations. Now these cases, where you find insanity occurring in the child, and afterwards in the mother, are not traceable upon the part of the child in question to that mother, but there is what Esquirol denominates "the fatal heritage," existing between both mother and child, and perhaps if we had been accustomed, up to the present time, in our Asylum records, to get complete histories of the families, and after we had been able to do that, to get not only the history of insanity, but those collateral diseases

which result in insanity, and which proceed from insanity, possibly we might be able to establish what Morel observed, that insanity is a neurosis, intimately blended and associated with most all of the neuroses, affecting the cerebro-spinal system.

I believe that we shall yet come to that. I well recollect that Maudsley, in that able work of his, ventures to classify, under the head of insanity, the hereditary insane temperament, the neurosis and nerve irritability, and you recollect how beautifully he expresses the idea,—always happy in the choice of expressions—when he says that an injury once implicating the cells of the brain, leaves an indelible impression, which, like the memory of an old man, may fade and be forgotten, but which never forgets him or his posterity.

The "fatal heritage" spoken of by Esquirol, I presume, will reach down, and I am almost convinced that the cerebral ridges upon the cell, are perceptible, although not so perceptible as small pox ridges upon the skin.

Now to reach the remedy, we pursue it for months and years after every vestige of the disease has passed away, so these facts suggest themselves to me, that the wisest course to pursue, when we discharge our patients, as recovered, from insane asylums, is to keep them under a kind of treatment, to maintain the cerebral cells in equilibrium, for a long time after the disease has apparently subsided. The least difficult, are those cases where the brothers or sisters are affected, or where the children suffer, but when it comes to the husband and wife, I am unable to offer any explanation to my own mind.

The PRESIDENT. I have had, as incidental to this, a rather curious experience. I would like to inquire of members, their experience in the matter of births in their Institutions. I have had quite a number; in two cases, the mothers were suffering under acute dementia, and in both cases the children were idiots. I would like to inquire whether other members of the Association have had any experience at all on that point?

Dr. GREEN. I know of but few cases of that character, and the result I have no means of knowing, except in one instance. A woman was brought to us some years ago, who from general appearance, seemed too old to bear children, but in a short time after she came, she was reported to the matron, by the attendant, as being certainly pregnant. We have a rule forbidding the reception of a female under such circumstances, and authorizing, or indeed requiring the superintendent, where such persons are imposed

upon him, to send them back until they shall have been delivered. I wrote to the court that sent her there; they declined to have anything to do in the matter, saying that the woman had no friends there, was found roaming about the woods, and they could not even give her a name. I never saw a human being who was subject to more strange and unaccountable delusions. For instance, she said that she had a thousand children, that she gave birth to a horse once, and on another occasion to a wheelbarrow. They were the most preposterous and unaccountable delusions I ever heard of. There were no means of compelling the county authorities to take her back, under our law, and as a matter of course, under the dictates of humanity, I would not turn the woman out of the Institution. She remained there, and in five months thereafter, was delivered of a child; that child is living at this time. The mother manifested a great fondness for it, but it was taken from her for the reason that what was doubtless meant for kindness by her, might do mischief. In whitewashing the rooms in her ward, the whitewash was sometimes left in an open room. She would take the child in, strip him, and whitewash him from head to foot. For this reason, together with the fact that the woman was liable to paroxysms of terrible excitement, in which she was very profane and obscene, I took him into another ward, and put him under the special care of a female patient who would take proper care of him. When he became a little older, my wife and I took charge of him, and thereafter sent him to school. He acquired a tolerable education but never had any ambition to learn. As the child had no name, soon after his birth, I named him Samuel B. Woodward, which he has borne ever since. After being taken from school, he was employed in the Institution, first in a situation where the labor was light, and subsequently as wagoner. At length he married one of the attendants. He is now living in the vicinity, and drives one of our wagons, has a small farm which he cultivates, and his wife has two nice little children. He must be twenty-three or twenty-four years old, perhaps twenty-five. There is not, in his case, any manifestation of mental derangement, or what we would consider mental deficiency. He had no ambition to learn, but has acquired the ordinary elements of an English education. His case is the only one which has ever occurred in our Institution, in which we had an opportunity to follow the history for any long period.

As to the woman, we have no knowledge who in the world she was, or where she came from, but the child, from its birth, we had

an opportunity to know. The woman remained insane, and she had those extraordinary delusions to the day of her death. She died in the Institution, after a lapse of several years. There have been, perhaps, three other examples of the birth of children from insane mothers, in the Institution, within the twenty-eight years that I have had charge of it; one was a bright little boy. When about five or six years old, the relatives came and took him. He resides in Mobile. I heard recently that they are sending him to school and that he is doing well. The other two died in early infancy, and of course there was no development as to their mental condition.

On motion, the Association adjourned to 10 A. M., of Thursday.

THURSDAY, May 21, 1874.

The Association was called to order at 10 A. M., by the Vice-president.

The Secretary read a communication from the Tennessee Manufacturing Company, inviting the Association to visit their cotton mill, which was accepted, and referred to the Committee on Business.

Dr. Curwen resumed and concluded the reading of his history of the Association.

Dr. Green presented resolutions in regard to the death of Dr. Wm. H. Rockwell.

Whereas, The Association of Medical Superintendents of American Institutions for the Insane, has received information of the death, since their last meeting, of Dr. Wm. H. Rockwell, of Brattleboro, Vermont, who for thirty-six years has been an earnest, faithful and efficient laborer in the noblest field of benevolence, connected with the healing art.

Be it Resolved, That in the death of Dr. Rockwell, the interests of suffering humanity, in its most fearful form, have sustained a loss greatly to be deplored, and this Association an able co-worker, counsellor and friend.

Resolved further, That to the family and friends of the deceased, we would tenderly offer our condolence and sympathy, in this their sad bereavement.

Resolved, That the Secretary be requested to furnish to the family of Dr. Rockwell, a copy of this testimonial of our appreciation of the deceased, and profound regret in his death.

Dr. RANNEY. It seems to me appropriate, as I am a native of the State which Dr. Rockwell served so long and faithfully, as well as a privilege, to second the resolution offered by Dr. Green.

It was my good fortune, and privilege as I esteem it, to have been acquainted with Dr. Rockwell, although the acquaintance was a limited one. I well remember his fine presence, and genial, courteous manner, which quickly won the respect and regard of all with whom he came in contact. His intellectual strength and culture also gave him great influence wherever he was known, and eminently fitted him for the position he filled and adorned for such a long series of years.

Although deeply engrossed with the financial affairs of a large public Institution, which he conducted with signal ability, his contributions to the advancement of practical psychological medicine, were important and valuable, and it is a matter for regret that they have not been preserved.

His untiring industry, great financial ability, and faculty of organization, and ability to forecast the prospective needs of his State, and provide for them, were integral and prominent characteristics of his mental constitution, and were the agencies which led to the gradual growth of one of the largest public Institutions of the country, with less pecuniary aid from the State or individuals, than in any other instance in this country; and the same great personal resources rebuilt the large portion, that was unfortunately destroyed by fire.

Like many others in our specialty, he, from time to time, encountered calumny and opposition, which he met with rare good judgment and common sense and fortitude, while the Institution under his charge went steadily on in the fulfilment of its appointed work.

In his domestic relations, I have reason to know he was singularly fortunate and happy, and through life he was aided and encouraged, in a rare degree, by the excellent qualities of head and heart of his wife, who survives him. Thankful that he was permitted to live to a period beyond the allotted age of man, with the ability to work in the field he chose to work in, in early life, until nearly the close of life, let us bow reverently over his grave, and believe that a good man has gone to his rest and sure reward.

The resolutions were unanimously adopted. Dr. Compton offered the following resolution, which was unanimously adopted :

Resolved, That the writer of each paper to be read before the Association, shall prepare a brief, but comprehensive synopsis of such paper, which synopsis shall be read by the Secretary, before the commencement of debate. The synopsis shall then become a part of, and be properly entered in, the proceedings.

Dr. WALLACE. Mr. President, members, yesterday, Dr. Curwen leading, were kind enough to give the Association the benefit of their experience in relation to the causal relations of cases of insanity occurring in families, detailing numerous interesting cases, illustrative of such inter-connection. I beg to submit that it might be matter of interest and instruction to membership, for these gentlemen, and such others as may feel inclined to do so, to increase the obligation the Association already feel toward them, for their valuable contributions to the interest of the session, by giving the body, the benefit of any peculiar methods of treatment, moral or medicinal, which their experience may have established as useful, the same not being generally known.

The PRESIDENT. Do I understand the Doctor to make a motion?

Dr. WALLACE. It is merely a suggestion to the Association. I would say, as explanatory, that I am sure there are members here who could, in a brief way, put matter into the possession of the Association, and I am sure they could into mine, that would be of interest. I do not mean any detailed account of treatment, but some hints. Every alienist of large experience, I suppose, has something peculiar in his treatment, something that is not in the common practice of the profession. I should be very glad to hear from some of them, some of the Nestors of the profession.

Dr. COMPTON. I feel that full responses ought to be made to the Doctor's appeal to the Association. On my own part, I have to regret, that I have acquired no special or new ideas, and no new remedies, else I would gladly give them to the Association. I rise, therefore, merely to join the Doctor in his appeal.

The Remarks of Dr. Peck on the treatment of ine-briety and opium eating, are omitted at his request, as he proposes to put them in more extended form, with full details of the cases.

DR. GREEN. I have had considerable experience in the treatment of these people, (inebriates and opium eaters,) and have had the misfortune, however, to know of but very few permanent cures. The principal trouble is the impatience of the patient, and very often of the friends, when they seemed to be entirely relieved, about taking them out of the charge of the Institution. I am very much inclined to think, with some of the authorities I have read upon the subject, that one of these people is hardly likely to be positively cured, short of two years. It is very often the case, when they have been in the Institution three or four months,—certainly not more than five or six to eight months,—that they feel they are cured, and their friends come to the same conclusion, and take them home; and when there they generally fall back. I have seen a few permanent restorations from the abuse of alcoholic or intoxicating stimulants.

I have not known for years of the article Dr. Peck speaks of. I am in the habit of administering the doses, which these people have been accustomed to take, very readily, in proportion, however, very much to their condition. When there is considerable vigor about them, I decrease the dose very rapidly. If in a state of feebleness, I give them some of the infusions, say of columbo, quassia or gentian, and allow them to use it just as freely as they please. Very soon I begin to give them also an article intended to supply the place substantially of the article spoken of by Dr. Peck. I give them a pill composed of sulphate of iron, powdered ginger, and oil of peppermint, which I have every reason to consider a very valuable adjunct in their treatment. It seems to furnish just the stimulation which the stomach demands, to improve digestion and the appetite, all of which is essential to successful treatment.

I have now in my care, a lady, whose case is similar to that of the clergyman spoken of. She is the wife of a clergyman. Her husband brought her there, stating that she had been in this habit for ten years. It originated in taking medicine for the relief of neuralgia. For the relief of the pain, the physician had found it most convenient to prescribe morphine. For two years past she had been taking from fifteen to twenty grains of morphine daily, superadding occasionally, alcoholic stimulants, wine, &c. He wrote that he despaired of her being entirely relieved, and thought it would be a species of cruelty to relieve her entirely. I believed she could be cured, and rapidly diminishing the amount taken, in eight months had her in a condition to do without these stimulants. I can not tell whether she is positively and permanently cured, but

she expresses the most thorough satisfaction, and says she will never lapse into that habit again. The long continued use of artificial stimulants, doubtless, produces a pathological change in the condition of the nerves of the stomach, out of which grows a necessity for the continued and increased use of the drug. It becomes a state of positive disease, which must be positively cured before, in an infinite majority of cases, the habit can be permanently overcome. Cases have been seen, of course, in which the physicians have been able to do so, but they are almost like drops in the ocean. I have no particular remedy, that I have been in the habit of employing, except the pill I stated. I give them, under certain cases, entirely to allay nervous excitement and procure sleep, bromide of potassium and chloral.

Dr. SMITH. It strikes me as eminently proper that we should respond to the request of Dr. Wallace. If I understand the Doctor, he is anxious to learn from the members of this Association, their usual practice in treating the ordinary forms of mental disease, not only the remedies used, but how they are given. We all use, for example, chloral hydrate, bromide of potassium, opium, different preparations of morphia, hyoscyamus, cannabis indica, succus conii, &c., &c., but what is most important to know, is how we use them, our ordinary doses, frequency of repetition, combinations, &c. It is well known, that two physicians, in treating the same disease, may resort to the same medicines, and one may be highly successful, and the other, as highly unsuccessful, all resulting from the different manner of using the same remedies. I think, therefore, at every meeting of this Association, a portion of our time could not be more profitably spent than in comparing views upon the treatment of insanity; as attaining the highest degree of success practicable, is the ultimate object of all our efforts.

The most popular remedy, at present, in a large majority of hospitals for the insane, I doubt not, is chloral hydrate. In some institutions it is given in large doses, and, in many cases continued for a long period. Its great popularity in connection with the fact that so many physicians regard it free from danger, I fear, has already caused many grave results, attending its use, to be overlooked. The importance of closely watching the effects of this remedy, has recently been more deeply impressed upon my mind from reading an article in the *British Practitioner*, from Dr. Ludwig Kirn, on "chronic poisoning with chloral hydrate." The writer referred to, details a series of morbid phenomena that oc-

curred in his own practice, from the continuous use of chloral, and collated these with the experiences of a number of others. Extensive erythemas and pustular, or papular exanthemata were often observed. C. Brown and Schule, both observed, as a result of the persevering use of chloral, fluxionary hyperæmia, and especially congestions of the head and face, with strong contraction of the pupils, and injection of the conjunctivæ. A case was given from Husband; after taking chloral, a number of days, a scarlatinal rash appeared over the whole body, with fever, and tenderness of the skin, followed by desquamation. Several cases were also related, in which the swelling of the face, with or without the rash, from continued use of chloral, extended over the whole body, and was ascribed by the attending physicians, to serous infiltration of the skin from stasis of the blood; in other cases, from slight external pressure, congestion in circumscribed spots appeared, with lowered sensibility, which, with continued use of the hypnotic, swelled and assumed a darker color, vesicles were developed, and would have run on to sloughing, if it had not been discontinued. These cutaneous symptoms have, perhaps, been justly ascribed to the paralyzing influence of chloral upon the vaso-motor center.

Another important symptom connected with the long continued use of chloral, is interference with respiration. A series of cases were given, showing this result, from slight difficulty, to positive dyspnœa, and if the remedy had been persevered in, fatal results, would, doubtless have followed. As soon as chloral was left off, all these grave indications disappeared. This chloral dyspnœa sometimes appeared with, and sometimes without the rash, and was often attended with a feeling of heaviness and anxiety. A case is given where an eminent physician had been called to see a lady, who had violent attacks of dyspnœa, which increased to asphyxia. At the same time, her face was swollen, the facial muscles were paralyzed, and all the usual indications of cerebral effusion were present. Death seemed inevitable, as all means had failed. The physician suggested the propriety of discontinuing forty-five grains of chloral she had been taking daily, as a hypnotic, and it is reported, that every alarming symptom vanished in an almost magical way; as the writer properly remarks, if this chloral dyspnœa can be explained by hyperæmia of the lungs, produced through the channel of vaso-motor nerves, as the effects of chloral upon the skin, it would clearly lead to a practical contra indication of chloral, in all cases where there is a tendency to congestion, or stasis of blood in the lungs. Another group of cases is detailed, showing clearly from the symp-

toms a gradual change in the composition of the blood, in short, chronic blood poisoning. My remarks have already been extended too far, to give them in detail. Sufficient to say, they were so clearly, minutely and candidly described, I could not resist the impression that results, so grave and dangerous were unquestionably the effects of the continued use of chloral, and that some of us had likely overlooked many of these alarming symptoms, or rather, in observing them, had failed to attribute them to the proper cause.

My chief object in alluding to this subject, is to obtain from the members of this Association, their experiences in the use of this remedy, and whether they have ever witnessed the indications of chronic poisoning, as detailed in the communication of Dr. Kirn.

The PRESIDENT. Dr Smith, what has been your observation of the effects of chloral?

Dr. SMITH. I can not say that I have seen the same dangerous and poisonous effects, as given in the article referred to. I have not, however, been in the habit of using this remedy to the same extent, and in such heroic doses, as has been usual in some institutions. My uniform rule has been, in giving chloral to new cases, to prescribe small doses, say ten, fifteen or twenty grains, to test its influence, and determine if any idiosyncracies existed. In the last year, we had one patient who slept well all night, and the next day, from ten grains of chloral. Twenty to thirty grains, two or three times a day, is the quantity we usually prescribe, and often combine it with an equal proportion of bromide of potassium. In recent cases of insanity, attended with high excitement, great restlessness, inability to sleep, &c., &c. I regard chloral as one of our best remedies, and usually the happiest results follow its use. We often combine with chloral, tincture of hyoscyamus and, in some cases, I have thought with very good effect. In other cases, we add tinct opii, and different preparations of morphia, and sometimes tincture of cannabis indica. One of my favorite prescriptions for controlling excitement, with many patients, and producing pleasant rest, is a combination of bromide of potassium and tincture of cannabis indica, say twenty to thirty grains of bromide of potassium and twenty to thirty minims of tincture of cannabis indica, one, two or three times a day, as the indications may require.

While I have the highest regard for chloral, with the class of patients indicated, I believe the greatest danger will result from its long continued use in cases of chronic mania, melancholia and dementia. We all know many of these cases require some remedy

to control restlessness, and conduce to quiet rest during the night, and it is more than probable, chloral is given regularly once or twice a day, to such cases, in many hospitals.

I remember four or five such cases in the last twelve months, who had been taking small doses of chloral, every day for sometime, and observed they seemed to be gradually failing, becoming more feeble and languid, gait unsteady and tottering, intellect dull, eyes injected, and a tendency to somnolency, &c. I determined at once to discontinue chloral, and substitute a tonic course with them all, quinine and iron, or quinine and dilute phosphoric acid, with a minute portion of morphia, and in a week or ten days, all the indications of exhaustion disappeared, and the contrast was so striking, they appeared like a new class of patients. From my own experience, therefore, I believe the continued use of chloral in all cases of depression and feeble circulation, as those suggested, would be hazardous and dangerous. We also know that among the chronic insane, there are many cases of latent phthisis, and if it be true, as stated in the *Practitioner*, that the continued use of chloral, through its influence upon the vaso-motor nerves, produces hyperæmia of the lungs, analogous to its action upon the skin, it would certainly be our duty to watch closely its effects, and guard against its protracted use in all cases, where this complication exists. Without dwelling farther upon this subject, allow me to say, if all the members of this Association, during the coming year, would observe accurately, minutely and discriminatingly, the effects of this medicine, in the different cases in which it may be prescribed, our combined experiences at the next annual meeting would likely throw much light upon this subject, and enable us all to prescribe more confidently, and more successfully, this potent and popular remedy. I trust the members present will favor us with their views upon this subject.

The PRESIDENT. Dr. Smith, in alluding to one of your favorite prescriptions, you use tincture of cannabis indica. Have you been able to procure a reliable article?

Dr. SMITH. Yes sir, the English preparation I have found uniformly good, but the American, as uniformly worthless, at least so far as I have used American extracts.

Dr. RANNEY. I think we can get a good fluid extract, Dr. Squibbs' of Brooklyn, I consider reliable.

Dr. SMITH. I have not used Dr. Squibbs', but know his preparations stand very high with the profession.

Dr. RODMAN. Some years ago, soon after the introduction of chloral, I wrote an article for the *American Practitioner*, in which I alluded to the combined action of opium and chloral. At that time chloral had not been as well studied as it has been since, nor was it as largely used in general practice. It is the experience of all present, that many cases of maniacal excitement occur, in which the trouble is aggravated decidedly by the use of opium. In some instances I have found the effect of chloral ephemeral and that of opium, not what I wished, when each was given alone; but in combination, I have seen the happiest result, several hours of refreshing sleep; the pathological condition seems to be so modified by the chloral, as to allow the common hypnotic results of opium, or its preparations. What this condition is, I must confess, I do not know with any approach to accuracy, and I am willing to allow, there is a taint of empiricism in my administration of these drugs; nevertheless, I think I can safely advise their use at the same time, in cases that persistently resist either alone.

Dr. ANDREWS. Probably most of the gentlemen present recollect the article on Chloral, published in the *JOURNAL OF INSANITY*, for July, 1871, at that time more than one hundred pounds had been used in the Asylum, and the use of it has been continued. We have noticed none of the ill effects which have been mentioned in the medical journals, no case of poisoning or chloral rash. The most marked result was in the case given in the article referred to, that of an attendant, who, after taking one dose of thirty grains, remained for a week under the influence of the drug. During this time he was sustained by beef tea and stimulants. He fully recovered and suffered no further bad effect from the dose. At the same time we had a patient, who, to procure sleep, took sixty grain doses nightly, for one year and a half. It was a case of melancholia, and the man, who recovered, and now lives in Utica, often refers to the benefit derived from the medicine.

Dr. GREEN. In the case of the man who was placed under such singular condition by the use of the chloral, was it afterward given him?

Dr. ANDREWS. He took but one dose. The full history of the case was as follows: He had been a soldier, and was severely wounded, and much broken down in health while in the service. He went home to assist in the care of a sick brother, and he was with him continuously for some three days and nights, during which time he lost both sleep and appetite. On Sunday morning he returned to the Asylum, and asked for something to make him

sleep, saying he felt nervous and restless, and could not get sleep. Thirty grains of chloral were given him. He went to bed immediately, and passed into a condition of deep sleep, from which he could be aroused to answer questions, and would sit up in bed, but was not able to walk, or support himself upon his feet. As soon as his attention was relaxed, and his mind was disengaged, he fell back to sleep again. This condition lasted, as was before stated, till Saturday morning following, when he was able for the first time, to be up and about the ward.

The PRESIDENT. What was the condition of his pulse during this time?

Dr. ANDREWS. It was full, of fair strength, and about sixty. Just as I arose, I was asked by Dr. Fisher to give our results in the use of rhamnus frangula. It has been used in the Asylum at Utica for ten years or more. It was first imported from Germany, where it had been employed for some years. It is found in the secondary list of the Dispensatory. There are two varieties. The catharticus and the frangula. For a long time it was obtained in bulk, and used in decoction, but as this form, imposed considerable labor in its preparation, some three years ago, Dr. Squibb, of Brooklyn, made a fluid extract, which we have since employed. We can hardly speak too highly of this drug, and it has been a standard laxative since its introduction. The advantages are, it is a stomachic tonic, it does not lose its effect, and does not have to be increased in quantity to produce a certain result. Where there is great torpor of the bowels, a small quantity, three to five drops of the tincture of nux vomica, may be added to the dose of a drachm. It is best given at night, but if this is not sufficient, the dose may be repeated three or four times a day. One of the best illustrative cases of its use, was in an epileptic patient. The case was reported by Dr. Echeverria in the proceedings of the Association of last year. The patient was admitted in a furiously maniacal condition. After being in the Asylum for one week he became quiet, was coherent in speech, and realized his condition. He asked for his syringe, saying that for seven years he had not had a movement of the bowels without using it, and it was necessary for his existence. It was withheld, and he was placed on the use of the rhamnus, given at night, and in the ordinary dose. It was continued for one year and a half, the whole period of his stay in the Asylum, and with the same good effect. He took the prescription with him, as he had come to rely upon it to the entire exclusion of other measures or remedies.

Dr. FISHER. Why did he leave the Asylum?

Dr. ANDREWS. He continued to have epileptic attacks, was irritable and discontented, and his friends yielded to his wishes for removal.

A DOCTOR. Did the rhamnus lose its effect by continued use?

Dr. ANDREWS. It did not. I gave this as an instance of the fact, that the beneficial effects of the drug are not diminished by protracted use. When the proper dose has been reached, we are rarely obliged to increase it, but may often reduce it in amount, or in frequency, or in both.

Dr. RANNEY. In regard to the drug the gentleman speaks of, we have been using it for several years. It is, in my opinion, peculiarly adapted to chronic constipation, or sluggishness of the bowels, and unlike other articles, it does not produce gripings, or any uneasy sensation in the alimentary canal. In large doses, its effect is increased, without unpleasant results. It is rather slow in its operation, in my experience, and is not adapted to a condition of very severe constipation, or the condition of torpor of the colon. Something more active has proved a valuable adjunct. I once thought, and still think, it combines some of the best qualities of both senna and, rhubarb, without the effects of an overdose of either.

Dr. CARRIEL. While the matter of the treatment of the insane is under discussion, I will add a little of our experience; especially with chloral and rhamnus frangula; have been in the habit of using the rhamnus for some ten years past, have not the extract, did not know that the extract was made, but have been in the habit of using a decoction, and have considered it a very valuable remedy in cases of habitual constipation, and especially in cases of melancholia, where we always find more or less constipation, resulting from the weakened condition of the nervous system. I have considered it not only a laxative, operating slightly, gently, and easily upon the bowels, but I have also considered it as stimulative and slightly tonic. I have used it with both these objects in view.

In regard to chloral, in our Institution, we use it extensively. We have been in the habit of ordering it from Philadelphia in fifty pound orders at a time. We live back in the country, you know, and when we go to the city, we lay in a stock. For the last four years, we have used it constantly in our Institution, and use it constantly now, but think we do not use it in so large a number of cases as we did, or give it in so large doses, as formerly. We are in the habit of giving it in thirty grain doses. That is the stand-

ard with us. We give it after the patient is in bed, and after the house has become quiet, and the conditions are all favorable to sleep. I consider it rather important not to give it until the patient is in bed. It produces a sort of intoxication, that is unpleasant to the patient while undressing.

I have not noticed any bad effects from the use of chloral, any unfavorable effects in any way. We have had one accident with it. A person, who was employed in the Institution, was given a bottle of chloral, containing 160 grains, with directions on the bottle, to take a certain quantity. She took the whole 160 grains at a dose, and as near as we can ascertain, was dead in from thirty to forty minutes after. I was apprehensive in some way that there might be some mistake, and went up to her room to ask how much she had taken. She replied she had taken the whole of it. I went immediately for the stomach pump, but before I got back she was entirely unconscious, and in fifteen or twenty minutes more, was dead. The surface was cool, and the face pale, the pulse feeble and diminished in frequency. The breathing also diminished in frequency, with constantly increasing intervals between each breath. With this exception, we have had no bad results from chloral, and I consider it one of the most valuable means of producing sleep.

The PRESIDENT. Was there any organic disease in the case?

Dr. CARRIEL. There was not. We made a *post mortem* examination, but nothing satisfactory was ascertained. We did think that we obtained the odor of chloroform in the brain. Of that I was positive, as were others present.

We do not usually repeat the dose. In cases of great excitement, when one dose of thirty grains does not produce quiet, and where sleep seems to be very important, we sometimes repeat the dose once. We are a little cautious about giving chloral to feeble persons, either those suffering from organic bodily disease, or greatly enfeebled nervous energy.

Dr. SMITH. Do you commence with thirty grains?

Dr. CARRIEL. I have no hesitation in giving thirty grains where I have never given it before.

Dr. EVERETS. What is the action?

Dr. CARRIEL. Chloral acts completely and pleasantly in the great majority of cases. There are some cases where it does not produce sleep, and even seems to increase excitement. So far as my observation goes, it does not have the same effect in persons addicted to the use of opium, as in others. I have three cases in mind now, opium eaters, or in the habit of taking opium largely, where chloral did not seem to quiet or produce sleep.

DR. BRYANT. Since the introduction of chloral, it has been my habit, in both private and hospital practice, to make frequent use of it. Ordinarily fifteen or twenty grains will act very pleasantly, producing refreshing sleep, but sometimes we meet with cases that require very large doses to produce sleep, even a drachm or more.

About two years ago, I had a patient under my care, who could not take chloroform, yet it was absolutely necessary to perform upon her a very painful operation, and the surgeon assisting, agreed with me, to try chloral hydrate, as an anaesthetic, to our surprise it required three drachms to produce the effect desired. The operation was performed with apparently little pain, and before we had finished washing the instruments that had been used, the patient had fallen into a sound sleep, and she continued to rest refreshingly until the next morning. There were no unpleasant symptoms accompanying the use of so large a quantity of chloral in this case. I frequently make use of chloral alone, but generally combine it with bromide of potassium, or bromide of calcium or opium, that is, some of the salts of opium. In combination, less of either article is required, than when given singly. In hysteria, generally, the tincture, or the fluid extract of hysocyamus or conium, given in combination with chloral, seems peculiarly soothing and quieting. Hemp given with hyoscyamus or belladonna, is sometimes a very happy combination. My experience in the use of chloral hydrate, leads me to the conclusion that it is all important for the medicine to be pure, and that it be used soon after it is compounded.

DR. COMPTON. "Every crow thinks its little crow the whitest," and doubtless every physician deems his mode of administering a remedy the best, at least he ought to do so. In answer to the Doctor's inquiry, I would state that our custom in the Mississippi Asylum, is to prepare each dose as it is required for immediate use. Our assistant physician makes his round of the Asylum, immediately after tea. We have some cases who take chloral nearly every night, others take it or not, according to circumstances. The assistant determines that matter as he goes through the wards, and makes up his prescriptions after his return to the office, our usual dose is about thirty grains, and we prepare it for the patient by dissolving that quantity in about an ounce and a half of very sweet water, I do not know of any better mode of administering chloral than that, certainly not a simpler one, I do not know that a mixture of long standing, well protected by a glass stopper, would lose its virtue; but I commenced its use in 1870, with the idea derived from some Journal, or perhaps from Liebreich himself,

that it would evaporate or decompose, and have therefore continued to compound it for use only a few minutes, at most, before the time of its administration. I may say that we use chloral a great deal in our Institution, and with very satisfactory results. We have one case of recurrent mania, to whom we are compelled to give chloral every night for two or three weeks at a time, in order to procure sleep for her, as well as for her neighborhood. About the time of the abatement of her excitement, and just when we are able to dispense with the chloral, she almost invariably has an attack of conjunctivitis, and her eyes, for a few days, are very much inflamed. I have not seen any other bad effect of chloral, if indeed that is one. It may be, and I rather think it is, a mere coincidence attending certain stages of the cerebral disease.

Dr. STONE. (Kentucky.) Mr. President, I only want, barely, to refer to the action of chloral in the experience we have had of its use in our Institution, (2d Kentucky.) We use principally a combination of chloral, and the tincture of hyoscyamus. This we found suggested in the JOURNAL OF INSANITY, several years since, and is a powerful combination. We have found the almost uniform effect of the chloral, whether with or without the hyoscyamus, to be that of a delightful narcotic, especially with the acute insane. I think I have observed that the medicine materially loses effect when long kept in aqueous solution. Several gentlemen have referred to instances, in which large amounts of chloral have been taken without serious effects. A patient of Dr. Rodman's took two hundred and seventy-five grains at one time. He slept for twelve hours, and for twelve hours more, had an almost unconquerable tendency to sleep. During this time, no alarming symptom appeared, and no very active measures were used with him. He recovered well. This amount compares with the quantity Dr. Carriel has mentioned.

While I am up, I should like to refer to the use of bromide of potassium in epilepsy. We have had as many as fifty cases of epilepsy in our Hospital, at one time; nearly all have been treated, for varying periods, with the bromide. There were not five out of this number who were not benefited by the use of the medicine, though we can not say that more than one patient was entirely relieved of the disease. Five had no epileptic seizure, for periods ranging from seven to twelve months. The recurrence in all these cases, but one, was due to the refusal to take the medicine longer; one was not heard from afterwards. Our recovered case has been free from convulsions, for upwards of four years. For twelve months

he has not taken more than an average of two doses a week, and has omitted taking one for a month at a time. The patient was one of the most violent of the insane, whom we have ever had within the Asylum. He once killed a man in Tennessee, in the most barbarous manner, and for no pretext scarcely. His trouble was periodic mania, of the most violent type. He has, apparently, recovered his mind entirely, and has been discharged from the Asylum several months. Dr. Boyd, of the Eastern Institution, of this State, saw this patient, with an opportunity of judging as to his condition of mind, and I think he concurred as to the man's seeming perfect sanity. It is at the suggestion of the Doctor that I refer to the case. The prescription of Brown-Sequard was used with the patient, almost throughout his treatment.

B	Potassæ Bicarb,	ij
	Potassii Iodidi,	ij
	Potassii Bromidi,	ij
	Ammonii Bromidi,	vij
	Infus Columbæ	ix
	Aquaæ destillatae,	xij fl. ft sol—

S. Give one teaspoonful three times a day, and three teaspoonfuls at bed-time.

It may be necessary to use a larger dose of the bromide of potassium. In accordance with a recommendation I saw in a medical journal some two years ago, I have since then substituted for the columbae used in this prescription, a preparation of cinchona, any one of the officinal ones. I believe this medicine to be a very efficient agent in preventing the skin disease—a papular exanthem—which is one of the well known effects of the bromides, in a large proportion of cases, in which these medicines are administered.

Dr. RODMAN. I can verify the statements made by my assistant, in regard to the benefits arising from the persistent use of the bromides.

When speaking of the use of chloral, he may leave the impression that the enormous dose, of more than half an ounce, was ordered by me. I am not willing to go upon record, as having prescribed this drug so heroically; the patient was allowed access, by a neglectful nurse, to the bottle, and swallowed its entire contents. Forty grains was the dose directed.

The Association adjourned at 12 M., to visit the Hospital for the Insane, where the members spent the afternoon, in examining the excellent arrangements of that Institution.

The Association was called to order at 8 p. m., by the Vice-president.

The Secretary read a telegram from Dr. G. A. Shurtleff, expressive of his pleasure at the decision of the Association to meet in Stockton, California; also a letter from Dr. D. T. Brown, expressing his cordial feelings towards the members; also a letter from Dr. Stribling expressive of his fraternal regards for the members.

The PRESIDENT. In continuation of the discussion of this morning, in regard to the treatment of some forms of insanity, and especially in regard to the use of chloral, I desire to say, while I have never seen any accident from the use of chloral, I have seen injury from its continued use, even in small doses. I have become accustomed to be guided in the use of chloral continuously, by the condition of the pulse altogether. If I find the pulse of the patient grows rapidly weaker, I think it best to immediately discontinue the use of chloral. I have known where but twenty grains were continued from day to day, and acting as a hypnotic at night, without being able to account for it, I have found the patient getting bad, failing in strength and appetite, and general appearance, and upon giving up chloral, and substituting some mild tonic, the whole face changed within one week. I think I can recollect four cases within the past few years, where we thought it necessary to discontinue the use of chloral, I do not know whether others have had that experience.

A DOCTOR. What was the form of the mental disease?

The PRESIDENT. Chronic insanity, a chronic nervous disease.

Dr. CURWEN. In my experience I have never seen unpleasant effects from the use of chloral, except curious idiosyncrasies. I remember a case, where it produced such an uncomfortable condition of the head, that it had to be stopped, and the patient's father I ascertained, has the same trouble from taking it. We have commenced with small doses, going up to larger, but never so much as some have been in the habit of giving, ten to fifteen grains and sometimes only five. I have known one lady, not insane, but very nervous, sleep from ten, to four or five o'clock in the morning, after the administration of five grains of chloral. I have been in the habit, frequently, of combining the use of some form of opium, or morphia, or some of its preparations, with the use of chloral, not giving them together, always, but sometimes the opium early in

the evening, and the chloral later, or just about the time the sedative effect of the opium is perceptible.

In reference to one matter, to which attention was called this morning, I would state that my experience has constantly been, that, when a patient is taking any form of alcoholic preparation regularly, chloral is almost valueless to produce sleep. It seems to be one of the peculiarities, as stated in the discussions in this Association, two or three years since, that when the patient is taking whiskey or any such alcoholic preparation regularly, it is almost impossible to produce the proper effect of chloral, except in largely increased doses.

Dr. COMPTON. Where a person is in the habit of sleeping with five grains, did you consider him insane?

Dr. CURWEN. I have put patients, who were insane, to sleep upon five grains, and intended to make them sleep by the use of that quantity. They were not, of course, very severe cases.

Dr. RANNEY. The fact stated by Dr. Curwen is quite new to me. I once administered chloral with very happy results, I thought, in a case of delirium tremens, in which the article had almost an opposite effect from that mentioned by Dr. Curwen. I have had the impression that it is often administered to bring on sleep, which, secured, may prevent delirium tremens. I believe it is known that chloroform acts more promptly, energetically, and perhaps dangerously, upon intemperate persons, or those who have recently indulged in alcoholic stimulant. The nature of the action of these two substances upon the system, is in some respects, or under certain circumstances, similar.

Dr. CURWEN. I refer especially to cases where you are obliged to give some form of stimulants, whiskey, or something of the kind, continuously, to keep up the strength of the patient, and carry him over a critical period. I know from frequent experience, that when a man is thus taking whiskey, it is necessary to secure good sleep, either to increase the amount of alcohol, or unite with it some preparation of morphia.

Dr. RANNEY. Does not that give rise to the presumption, that this peculiar action of chloral mentioned, is due to nervous weakness, rather than the coincidence with a stimulant?

Dr. CURWEN. No, for by dropping the whiskey, the chloral will readily act.

Dr. COMPTON. The question suggests some reflections, which I suppose all of us, who have much experience in the practice of surgery, have at one time or another indulged, upon the use of chloro-

form as an anaesthetic. In military practice at the South, during the war, chloroform was the usual anaesthetic, and it became pretty generally understood, that, while our patient, a wounded man for instance, would bear the chloroform better, having previously taken a stimulant, he would not yield so readily to the influence of the anaesthetic, but that he would in the end, emerge from its influence in a better condition. The fact is known, that alcohol is antagonistic to chloroform; in short, that while alcohol is a stimulant, chloroform is a sedative. It is conceded, I believe, that the effect of chloral upon the patient, is the result of the action of chloroform set free in the blood. Dr. Liebreich says that the effect of the chloral depended much upon the condition of the blood; that an alkaline condition of that fluid, was indispensable in order to perfect the chemical change necessary for the full effects of the medicine; that it was well, sometimes, when the chloral failed to have a prompt effect, to precede its administration with an alkali. Now if it is true that alcoholic stimulants retard the effect of the anaesthetic in surgery, it may be, and is quite likely, that the effect of the chloral may be very materially modified by the presence of alcohol in the brain. That fact may account for much of the irregularity charged upon chloral, in its influence upon those addicted to strong drink. We all know that our treatment of alcoholism, depends entirely upon the stage. The victim of mania-a-potu, stimulated to raving madness, by a brain overloaded with alcohol, requires a treatment very different from one who is weak and nervous, and in that condition which we call delirium tremens. In the former case, the chloral might meet the emergency alone; in the latter, it would be well, perhaps, to administer it in conjunction with a stimulant. So we perceive, that there are some conditions in which chloral, if our theories are correct, may be expected to disappoint us, and it is probable that some of these examples fell into the doctor's hands.

The PRESIDENT. We have noticed the same thing that Dr. Curwen has alluded to, so much so, that our custom is never to give chloral within an hour or two after having given stimulants, either whiskey or wine. I have also noticed, that an ordinary dose of chloral, of ten or fifteen grains, will have no effect whatever in common cases of what is called sour stomach; that a dose of magnesia, or something of the kind, will enable the chloral to act with its accustomed power at once.

I will call attention to the new hypnotic—the eroton chloral hydrate. We have used it for the past month, giving ten grains

once or twice a day. It controls nervous patients without putting them to sleep, and without stupefying them in the least. Chloral, given in large doses, paralyses the heart; croton-chloral does not. Sixty grains, given so as to produce sleep, will produce such an effect that the patient will go to sleep sitting upright in his chair; whereas, a small dose of croton-chloral, would prostrate the patient at once. He could not sit up at all. We are experimenting with it. I have not yet gathered sufficient statistics to show its value, but am much pleased with it so far as I have used it. In cases of chronic disorder, dementia, and threatened and active exhaustive delirium, the croton-chloral is relieving them delightfully. Ten grains administered in the morning, and perhaps repeated after dinner, carries the patient through the day. At night, fifteen grains of chloral hydrate, will insure him a perfect night's rest. If members have not used it, I recommend that they get it and try its virtues. The only difficulty is, that it is not readily dissolved in water, but the addition of a little alcohol will bring about a ready solution.

A DOCTOR. Will the President state the character of the remedy?

THE PRESIDENT. It is very much like chloral hydrate, differing from it in that one particular,—in large doses it does not paralyze the system. It is an equivalent of alcohol, added to the chemical equivalent of chloral hydrate.

A DOCTOR. It has no relation to croton oil?

THE PRESIDENT. Not at all. Some one did publish a statement to that effect, but it is not true. It is a salt, very much like chloral hydrate, but softer and more adhesive to the finger, and more oily in appearance.

DR. STEVENS. I do not know anything, by practical use, of the croton chloral; the circular was handed to me by a druggist of St. Louis. I handed it to-day to Dr. Slusser. I asked the druggist whether it had any relation to croton oil. He said not at all. He said further, that several practicing physicians were using it in St. Louis, with good effect. I suppose the action of it was principally to control pain, more than as hypnotic. I have no doubt, however, that the experience of gentlemen present will confirm this view. While using the hydrate of chloral, some two or three years ago, or very soon after it came into general use, there was published in the *St. Louis Medical Journal*, a statement that several deaths had occurred in the city from the use of the article. Several physicians consulted me at the Asylum, and I was aston-

ished that the deaths could have occurred. I am under the impression that these cases appeared in the reports of the Medical Society, or possibly as contributions. These reports deterred the physicians of St. Louis, for some time, from the use of it; and some were perfectly astonished at my experience, using it, as I did, in doses of twenty or thirty grains, and for a long period, without an accident of any kind. I do not know whether such was the experience of others in the profession in other places. I doubt very much whether these deaths were in reality caused by hydrate of chloral, although I believe the deaths occurred from other causes, or were merely coincidences.

The PRESIDENT. Would you venture to give hydrate of chloral with organic disease of the heart?

Dr. STEVENS. I have not had any experience, but I think I would.

The PRESIDENT. I should not dare to.

Dr. STEVENS. If it has any effect, I suppose it would be to diminish the force of the circulation. Even in extreme cases, where the disturbance was not very great, I would not hesitate.

Dr. COMPTON. (To the President.) Did I understand you to say to Dr. Stevens that you would not give chloral in diseases of the heart?

The PRESIDENT. I should not venture to do so.

Dr. COMPTON. I have been hearing and reading about the danger of chloral in heart disease, ever since that remedy came into use; that in heart disease, you had better be careful in the administration of chloral.

Now, there are a great many kinds of heart disease, and the pathological conditions and therapeutical indications presented by some of them, are entirely different from those we find in others. We have hypertrophy and atrophy, and various kinds of degeneration of tissue; we have endocarditis, resulting in an endless variety of valvular difficulties; we have pericarditis with its sequelæ, besides a host of other disorders, all coming under the head of "heart disease." So indefinite is this term of "heart disease" in the country, that when any body drops down right suddenly, and dies without saying any thing about it, the world is generally satisfied with the verdict that he died of "heart disease."

But I have not been able to understand, up to this good hour, from any experience with chloral, what particular form of heart disease its use is said to aggravate, or what pathological condition about the heart, renders the use of chloral dangerous. I do not

think we that have any of this anti-chlorallic heart disease in our Institution. Some of our inmates have heart disease, but I have never seen any thing in the effects of chloral that would deter me from its use, should a hypnotic be required in any of the cases. If we had atrophy of the heart, with other diseases connected with it,—indeed, Mr. President, I can imagine a case of “heart disease,” in which I would almost hesitate to do any thing,—I would scarcely speak to my patient except at low breath, for fear that his heart would either jump out of his mouth or turn topsy-turvy, and spoil every thing.

But really, I do not know of any disease of the heart, with which chloral would be likely to interfere, and I would be much gratified if the Association would thoroughly discuss the subject. On this point I ardently desire information.

Dr. STEVENS. I suppose that our President objects to the use of hydrate of chloral in heart disease, on account of its supposed action in diminishing the force of the circulation. Am I right?

The PRESIDENT. Yes, sir.

Dr. STEVENS. One reason why it is so valuable is, that it is a hypnotic, acting on the circulation, and producing a natural sleep. We are taught that sleep is caused by a diminution of the blood in the brain, that in sleep there is less blood in the brain, than in the waking condition. How this is diminished by hydrate of chloral, I know not, but it is demonstrated that such is its action.

Dr. COMPTON. But it does not diminish the circulation at the heart.

Dr. STEVENS. Still I believe it produces a diminution in the arterial and capillary circulation, and I would not hesitate to give it.

Dr. BRYANT. Mr. President, I wish to make a remark in relation to what Dr. Stevens has said. It is believed that during sleep, there is less blood circulating through the brain, than in the waking state. Upon this theory, some physicians have recommended to their wakeful patients that they sleep with their heads elevated upon high pillows. I am disposed to think that often this will have the desired effect; I have tried this plan upon myself, and prescribed it to my patients, with good results.

Chloral is thought to act as a hypnotic, simply by its action secondarily, in diminishing the amount of blood circulating through the brain, by lessening the force of the heart.

Several years since, Dr. Mitchell, of Philadelphia, made experiments upon pigeons and guinea pigs, with chloral, and he was fully

convinced that the force of the heart was greatly diminished by the medicine secondarily, but its primary action increased the force of the heart, which action usually lasted for twenty or thirty minutes.

Dr. Anstie, of London, who has experimented more largely than any one, with chloral, reaches the same conclusion; that is, that the first action of chloral is generally, if not always, exciting to the circulation of the blood, but that after twenty or thirty minutes, the force of the heart falls below the normal standard.

Dr. HUGHES. I have been waiting for Dr. Andrews to state his experience in the use of chloral. I recollect having read an interesting series of experiments made by him in Utica, in regard to this remedy, in which it was ascertained, I think quite satisfactorily, that chloral, whilst it produced a very temporary and transitory exaltation of the cardiac action did, when its full effect was obtained, lower the pulsation, but not as much so as some medicines employed for the same purpose. I believe that fifty-four beats per minute was the lowest reached. I have always employed chloral, upon the theory that it reduces the cerebral circulation to the sleeping point, that it was the most natural hypnotic of all the sleep-inducing agents at our command, unless we except, perhaps, bromide of potassium, which is not so rapid and prompt in its action. I presume it is true, as Liebriech conjectured, that the action of chloral is similar to the action of chloroform. I think we may accept it now as a fact, perhaps, sufficiently well established, that it does form chloroform, in combination with the salts in the blood, and that it acts in a similar manner. Well then, if it does act in the same way, our rule in the employment of hydrate of chloral, it seems to me, should be such,—at any rate has been my rule,—to guard against overpowering the involuntary nerve centers beyond the point of reaction; and I have been accustomed to regard from twenty to thirty grains, which I consider the proper minimum for the average insane person, as perfectly safe. I have used a great many pounds of it; perhaps I would not be wide of the mark if I said several hundred pounds, for I do not like noise, and my rooms were in close proximity to the patients. I was in the habit of giving chloral hydrate at bed time, and repeat about four o'clock in the morning, in noisy cases. I made it a rule to keep my patients asleep at least during seven or eight hours of the night.

The reports show no greater mortality after, than before the employment of chloral, and a better percentage of recoveries.

There is this, however, in regard to the use of this medicine. In cases of acute mania, where the cerebral disintegration is irregular, perhaps excessively irregular, but not much diminished in amount, and not so much in degree, as in cases of dementia, or of paresis, or of softening of the brain, you may safely, I think, use larger doses of hydrate of chloral than in the more depressed cases. It has appeared to me that the reaction was more steady, that the patient betrayed less drowsiness the next day. When some of the patients complained of headache the next day, I was in the habit of either reducing the dose, or adding quinine to it; a grain or two of sulphate of quinia, combined with the hypnotic dose, usually removed the difficulty. I have been in the habit of giving chloral in egg-nog or whiskey punch, rather freely, twenty or thirty grains, sometimes forty, and I have not found any ill effects. Now, I can not see why chloral hydrate should be objectionable in cardiac diseases, unless carried to an extreme degree. You know we used to be very fearful of producing death with chloroform, in cases where the heart was organically involved, and that the admonitions of the text books, and the directions generally of college teachers, were to be exceedingly cautious that your patient is free from heart disease in any form. Now there are many forms of cardiac involvement, it seems to me, in which theoretically, and from my own experience and practice, chloral hydrate is of a decided benefit. For in cases of hypertrophy of the heart, with your cardiac pulse above the normal standard in force or frequency, it seems to me that the chloral hydrate is the remedy indicated; and in cases of functional disorder I should not hesitate at all to administer it. A remedy which will relieve the heart of extra labor, which will reduce the labor down to the minimum standard compatible with the health of the patient, seems to me to be the article really required in such cases. Therefore, I have employed it, and know my patients have been much improved by it. But I know in my own experience of the use of chloral, in numerous cases, that it is liable to produce depression about the heart in over-doses, too long continued.

I consider that it acts upon the whole nervous system, first upon the involuntary, and secondly its action is extended to the voluntary nerve centers.

Perhaps some of the members have noticed the ill effects resulting from the administration of chloroform after that of chloral. I have administered it thus, occasionally, and if I retain my sanity, I do not propose to do it again. Of course, we do not know to an

absolute certainty how chloral acts upon the blood, but suppose, that it produces chloroform. Chloroform carbonizes the blood, is irritative to the parenchyma of the lungs, and diminishes the amount of air received into the blood for the purpose of oxygenating it. So I look upon it as highly injudicious to carbonize the blood from two different directions at once, the stomach and the lungs.

Dr. BRYANT. Mr. President, there is one action of chloral, when given in full doses, which has not been mentioned by any member of the Association. It is this, that the peristaltic action of the bowels is greatly augmented by the administration of chloral. Dr. Jackson, of Danville, Ky., made some experiments upon cats and dogs, with chloral, and he was led to the conclusion that, some hours after its administration, the peristaltic action of the bowels was decidedly increased. Dr. Jackson's experiments were published at length in the Richmond and Louisville Journals, and were very interesting. I have made a number of experiments myself, with special reference to the action of chloral in increasing the peristaltic movements of the bowels. I fully agree with Dr. Jackson, that chloral does augment the peristaltic motions of the bowels, and therefore should be given cautiously, in any case where diarrhoea exists.

As no allusion has been made to this action of chloral, by any of the members who have taken part in this discussion, I would ask if any one present has observed it?

The PRESIDENT. It has not occurred to me to notice it.

Dr. WALLACE. Mr. President, the discussion provoked at my instance, seems about exhausted. I embrace the opportunity to thank the membership for their prompt response, and take occasion to add that, they have traveled pretty well over the ground, that the discussion has taken very nearly the direction and range desired. There are some points in regard to which I would have liked for the members to have been somewhat more explicit. I have been accustomed to think, with my friend Dr. Smith, that whatever may be its modus operandi, the effect of chloral hydrate, continued for a length of time, is to produce irritation of the brain, or its membrane, perhaps both, as evidenced by injected conjunctivæ, photophobia, &c., resulting in nervous prostration and general debility.

Upon taking charge of the Asylum in Texas, some months since, I found this agent being used inordinately, I might say almost *ad libitum*, even by the attendants. The female night watch partic-

ularly, and I am quite sure there was in almost every case in which she was exhibiting it most freely, as shown by the morning reports, an aggravation of the symptoms, and in no single case an amelioration. It occurred to me that what I supposed the bad effect of the chloral, might be counteracted by exhibiting it in combination with bromide of potassium, without lessening, but rather increasing the hypnotic action of this great sleep-producing agent. The result has not disappointed expectation.

In regard to the action of chloral in cardiac diseases, I take it Drs. Compton and Hughes are not so far apart as they seem. I agree with them both, and they agree with each other, *if they knew it*. The theory of both is correct. I have used it frequently in cases of hypertrophy, in which the action of the organ was tumultuous, interfering with rest and sleep. Regarding it as an arterial sedative, I give it with no more hesitation than I would digitalis. In certain other diseases, for instance, in ossification of the valves, or in an atheromatous condition, that is, where I had reason to suspect such condition I would *not* give it.

Dr. HUGHES. I omitted to say something in regard to small doses. It has been my experience in giving small doses that they act rather unsatisfactorily; for instance, three doses of five or ten grains as a hypnotic, or in that way. I have never got satisfactory results from administering it thus. A ten grain dose of chloral hydrate usually fails to take possession of the nervous system, and the result is that it becomes a foreign element in the blood, an irritant to the cerebral cells. Now I suppose small doses, repeated before you become acquainted with your patients, would do. I have come to the conclusion, whether subsequent experience will sustain it or not, I can not say, that small doses are not as advisable as large doses. I believe that thirty grains is generally the most efficient with the ordinary patient. It usually serves, without repetition, to take possession of the system to such an extent as to involve the brain in sleep.

In regard to alcohol, I know that it is the experience of Dr. Buttolph especially, that alcohol given at bed-time was a good remedy. Hot whiskey punch, you know, is a favorite prescription of the Doctor, and which he frequently mentions in his reports. I have used it in the same way in cases of debility, used uncombined hot whiskey punch, and in some cases got very satisfactory results.

Of course, in the use of a remedy, it becomes necessary to consider the condition of your patient. Each individual case is a problem to be solved by itself. If you have a patient in whom

fatty degeneration has taken place, in whose organism any of these changes in the nervous system have occurred, which result peculiarly from alcohol, I doubt the propriety of resorting too frequently to a repetition of this agent as a hypnotic. We all know that there are states of the brain when alcohol acts admirably, while there are other conditions of the cerebral organ, when it fails to take possession and induce sleep.

The PRESIDENT. The result of this discussion seems to have established the fact, pretty thoroughly, that however we may differ in theory, yet we all are agreed that the administration of chloral hydrate, and other substances similar to that, should be made with very great caution always, and that seems to be the one point in the discussion to be established.

Dr. STEVENS. I do differ from you upon that point, where you say great caution, you mean that kind of caution that we are to exercise in the administration of strychnine, opium, or morphia.

The PRESIDENT. Precisely.

Dr. STEVENS. But I can not consider it entitled to the name dangerous remedy. Now we use it, and it is almost the universal sentiment of the specialty, that it can be used very frequently, and in very large doses without danger. We have hardly a report to warrant that term. The term, great caution, going into the papers, would set it down as a dangerous remedy.

The PRESIDENT. I trust so.

Dr. HUGHES. In the new book of Dr. Tuke, he has, I believe, incorporated Dr. Andrews' views, and speaks of them in a very commendatory manner. Dr. Andrews detailed some remarkable experiences with chloral hydrate. You recollect he gives the case of one patient who took six hundred grains, and the patient, after sleeping sixteen hours, recovered admirably well. Then there are several cases where one patient took ninety grains at a dose,—took three ninety grain doses, with no ill result.

The PRESIDENT. Yet we have authentic cases, where the administration of forty or fifty grains, caused the patient to sleep over forty-eight hours, showing great exhaustion after waking.

Dr. CURWEN. I question very seriously whether the article used in these cases of excessive doses, was a good article of chloral.

Dr. HUGHES. That recalls the remark of Liebreich in regard to chloral. He states that in the locality where he resides, a number stopped the use of chloral, regarding it as a dangerous remedy. Liebreich says it is not a dangerous remedy. In quite a long article he details the result of chemical experiments with different

manufacturers of chloral, and he found that chloral that had been used in that city, on account of its cheapness, was an impure article. I think that the fatal cases, occurring from our maximum doses of forty or sixty grains, are the result of impurities, and I believe that to be true in regard to chloroform.

Dr. CURWEN. I made the remark I did upon different qualities of chloral, from the fact that sometime since, we obtained at the Hospital, a quantity of chloral, which really was not worth anything. It was supposed to be a good article, but it had a different brand from what we had been using, and when we sent it back and obtained the article of the same firm we had been using before, we had the same effects as formerly. Therefore, I think, that where these large doses have to be given to produce sleep, an inferior quality of chloral must be used.

Dr. COMPTON. The subject of chloral has been so generally and so thoroughly discussed, that I think it would be well to bring it to a satisfactory point. We all use chloral, and have used it with more or less liberality since 1870. Some of us regard it as a sheet anchor in cases of wakefulness : I suppose none of us claim for it the powers of a cure. I simply use it as a hypnotic, and for this purpose, have come to regard it as a most excellent medicine, for many reasons. In its administration, I do not feel that I am required to observe more caution than in the use of opium, or any other harmless drug, if used within due bounds. I seldom use it in doses larger than thirty grains. But thirty grains seem to be regarded by yourself as an absolutely large dose.

Now since some of us have been employing it with this freedom, without accident, and are very apt to continue until we are shown to be wrong, I feel it to be my duty to my patient, to insist that I be corrected. In many cases it is not desirable to use opium or any of its preparations, and we resort to chloral, because it has none of the subsequent bad effects of opiates, it is more reliable, it is convenient, palatable and reliable. If, therefore, there is any class of cases in which it is not safe, I wish to know what class that is, and I respectfully request those who have a larger experience with it than myself, to enlighten me.

Dr. BRYANT. I have used chloral very often, and with a liberal hand, and I can very consistently say, that, in my opinion, chloral, when pure, is not to be regarded as a dangerous medicine when given in the usual quantity, from fifteen to twenty grains at a dose. Has any member of this Association ever witnessed a death directly caused by the poisonous action of chloral. We are told

that persons' have died, from even moderate doses of the drug. But when we investigate the cases of those who are said to have been poisoned by chloral, it usually turns out that they have been dissipated, or diseased persons whose lives had been held upon a slight tenure, for weeks or months previously, and it is likely that they would have died suddenly, had they not taken chloral at all. So that the death is *post hoc* and not *propter hoc*.

A full expression of the opinion of the Association, on the poisonous effects of chloral, must be regarded as a matter of interest, both in and out of the profession.

The PRESIDENT. The same was said of chloroform, and it was for a long time disputed, yet there have been very numerous cases of death from it.

In relation to the value of hydrate of chloral, I know of a very curious circumstance. One of our distinguished citizens had been traveling in Europe, for his wife's health. Having exhausted his supply, he called on a London manufacturer, and asked for the best quality of chloral hydrate, when he examined the article he noticed that it was of German manufacture. "Are you aware of what you gave me?" Yes sir: you asked for the best, and I gave you the German. We can not make the same article, because we can not get as good quality of alcohol, as is made in Germany.

I suppose I must continue in my belief that we should use caution, and great caution in the use of this article.

On motion, the Association adjourned to 10 a. m., of Friday, May 22.

FRIDAY, May 22, 1874.

The Association was called to order at 10 a. m., by the Vice-president.

The minutes of the meetings of yesterday, were read and approved.

Dr. Curwen offered the following resolution :

Resolved, As the decided opinion of this Association, that chloral hydrate is a remedy, so peculiar in its effects, and so decided in its therapeutic action, that it should be employed with great caution, and only on the prescription of a reputable physician.

Dr. HUGHES. I move to strike out the words, "with great caution and." I think that is a little too much. It is not material, I think.

Dr. CURWEN. In my opinion, that is the point of the resolution.

Dr. WALLACE. I hope that it will not be done; it will emasculate the original resolution.

Dr. BRYANT. I shall be compelled to vote against this at present, I am sorry to say.

Dr. HUGHES. I shall be compelled to vote against it.

Dr. STEVENS. I shall be compelled to vote against it. I think the people are now timid in regard to the use of chloral. We, who are engaged in the treatment of the insane, use the remedy for cases different from other physicians, our patients are generally in good bodily condition. They use it among the sick, and if the sentiment goes out from this body, that it is really a dangerous remedy, it will prejudice the public against it. It is a most valuable remedy. We are now using it in lieu of opium, and we do not want a feeling against it.

Dr. BRYANT. If the question of poisoning by salts or calomel, were before the Association for discussion, it would be of as much importance as the one on this occasion. Both calomel and epsom salts are usually regarded as being quite harmless in their ordinary action, when given in moderate doses. Yet I doubt not that as many, if not more, people have been poisoned by calomel and salts, since the introduction of chloral hydrate, than by chloral itself. There are but few active, valuable medicines that are not poisons when given in inordinate doses. Those who take chloral themselves, without the knowledge or consent of a physician, almost of necessity use it improperly and inordinately. It is, in my opinion, the abuse and improper use of chloral, which has caused it to be regarded by physicians as a dangerous medicine.

Dr. CURWEN. The reason why I used the words "great caution" is this. It is well known by gentlemen in this room, that persons are in the habit of sending to druggists for chloral, and taking it just as they do whiskey, opium and other articles, to produce a pleasurable sensation.

My professional, as well as private opinion, is that they should be warned against the use of a drug which may be productive of great injury, in the way it is commonly used. Reputable physicians,—and I think all here may well be classed under that term—I believe will agree, that for persons to use it as is too commonly done, without prescription, is attended with great danger.

Dr. HUGHES. The discussion of last night, showed considerable variance of opinion. I believe chloral a valuable therapeutic agent, and that it should be used as other therapeutic agents, with caution. This remedy *can* do harm. Like a surgeon's knife in the hands of an unskillful person, it may kill.

As to using it with "great caution," if this Association should see fit to so pronounce itself, it would go forth as of all hypnotics, to be used with greatest caution. I move to insert, "with caution, like other valuable, or most valuable therapeutic agents."

Dr. RANNEY. Individually, I should prefer to have the resolution passed as it now reads. I think it is a remedy that should be used with great caution. A small overdose, I have seen produce an enervating, depressing effect, diminished appetite, soft frequent pulse, flushed face, and injected conjunctivæ, lasting for twenty-four hours after the hypnotic effect had passed off. Members of the Association have spoken of administering doses of chloral, I should not dare to administer, under any circumstances I can think of. I do not know of any cases, coming into our hospitals, so extreme, as to call for such doses as have been mentioned here.

That chloral has been used very indiscriminately, both by the profession, and the public, there is no room for doubt, and unless some check is interposed, much harm may be done, to be felt as much in the remote future, like some forms of intemperance, if not more, than in the present or near future.

It is most proper for the Association, to take such action, as is implied in the resolution, for something said in the previous meetings, and in some reports, have probably had the effects to extend its use beyond any proper bounds. Within a year I have had occasion to caution a physician, against the use of chloral, in a certain case, whereupon he said, I have understood that hospital physicians use it almost *ad libitum*. It is a drug of much importance, and capable of great good, but singularly liable to be used to excess, and therefore, capable of doing great harm.

Dr. SMITH. I must say, that I am decidedly in favor of the resolution introduced by Dr. Curwen, and somewhat surprised at the decided opposition of several, who have preceded me, as if chloral were a remedy entirely free from danger. While in many cases, as already stated, I believe its value as a medicine can not well be over-estimated, in very many others, I as fully believe its continual use would be extremely hazardous and dangerous.

The writer in the *British Practitioner*, to whom I have referred, states that cases of acute poisoning, from chloral, involving the greatest danger to life, or ending fatally, have appeared, especially in the English Journals, with fearful frequency; and in our own country, can it not be truly said, many deaths have resulted from the improper use of chloral? Many persons, as we all know, have idiosyncrasies, that contra-indicate this medicine, which, as with other remedies, can not be known before its administration. In view of all these considerations, and the fact, as our President has informed us, that it is being used to an alarming extent, by many citizens in the eastern states, as a hypnotic, it is certainly time, and accords with the commonest dictates of humanity, that the medical profession should take strong and unequivocal ground in favor of great caution in its use. And, Mr. President, it occurs to me, that it is particularly incumbent, upon the members of our specialty, to exercise this great caution. Is it not true that the great majority of the patients, in all large hospitals for the insane, are such as would most likely be injuriously affected, by the long continued use of chloral? Its great popularity during the last few years, as a hypnotic, in the treatment of the insane, has induced many of us to prescribe it, not only in recent cases, attended with high excitement, but to a majority of our patients, unable to sleep, and especially if restless, boisterous, and a source of annoyance to others. How common has it been to direct one or two doses of chloral to be given regularly, every day, to such patients, under the impression, perhaps, that the great repose, following its use, would rather counteract, than favor the tendency to exhaustion, so clearly manifested in many of them. If, with the persevering use of chloral, such cases should progressively decline, and ultimately die, would the result be recorded, death from maniacal exhaustion, or chronic poisoning from chloral? My impression, Mr. President, is that, in the class of cases to which I now refer, the effects of the protracted administration of this remedy, have not been sufficiently closely and discriminatingly watched. The cases to which I alluded in previous remarks deeply impressed upon my mind the necessity for great caution, and the more I reflect upon this subject, the more thoroughly am I convinced of the propriety and importance of the resolution before us, and it appears to me, this Association should vote, without hesitation, unanimously in favor of great caution, in using a remedy, fraught with results so insidious, so dangerous, and so fearful.

Dr. PECK. I can see no harm in the passage of this resolution. It seems to me that I can see benefits arising from it, emanating as it does from this Association; and I am very well satisfied, in my own mind, from experience, that the indiscriminate use of chloral has been serious in a large number of cases. I would relate, if it were proper to do so, some experiences rather recent, with relation to the very free and rather indiscriminate use of the drug, to the damage of many of those to whom it had been administered. I can not see any harm, certainly, arising from the passage of the resolution, with the watch word, in connection with caution. I think that the qualification would be an advantage, rather than a disadvantage.

The PRESIDENT. It seems to me, brethren, that some of us can have but very little knowledge of the rapid spread of chloral drunkenness in our large cities, and among females. It is a notorious fact, beyond all question, that women in our large cities, are using chloral to-day to a most alarming degree, and solely because of the almost criminal carelessness with which physicians recommend its use. I do not see what objection there can be to great caution. I can not see what harm it will do. Will it deter any physician from using it in his private practice? If it will in cases which commend themselves to his judgment, he had better retire from practice altogether. It certainly can not do any harm there. It is on the safe side. It seems to me, if we can have unanimity only by emasculating the resolution, then better not have it. I am sorry that the matter has been introduced. It was done after the recommendation of Dr. Hughes.

Dr. HUGHES. I will endorse any resolution against the indiscriminate use of this article. Cases of malpractice may be brought before the courts. Do you propose, when most of the members have gone home, to determine upon a question so important as this, that this remedy should be used with great caution? Opium is a remedy to be used in that way, arsenic, strychnia, &c. Some acids are to be used with great caution. I might mention three-fourths of the remedies used in the *materia medica*, all of which should be used with great caution. Why single out chloral hydrate? To single this one remedy out, and to pronounce upon it, in a meagre meeting like this, as authoritatively as is proposed, would not be judicious. I do not object to condemning the indiscriminate use of this drug, though I regard it as one of the most valuable therapeutic agents. I think we ought not to pass upon it so sweepingly, in such a meagre meeting as this is.

Dr. CURWEN. Twenty out of thirty-five is not a very meagre meeting.

Dr. CALLENDER. As Dr. Hughes has suggested, the meeting has become somewhat meagre, and the resolution of this body will become more or less authoritative. I move that the resolution be referred to a committee of three, to report formally at the next meeting.

The motion was agreed to, and the Chair appointed on said Committee, Drs. Hughes, Curwen and Nichols.

Dr. SMITH. For the purpose of having as much valuable matter before the next meeting of the Association as practicable, I have a suggestion to make. It is well known to some of the members present, that Dr. Bryant, for many years before taking charge of the Kentucky Hospital for the Insane, near Lexington, made a specialty of uterine diseases, and attained enviable distinction in this branch of the profession. I have recently been much entertained in reading a communication of his on gynaecology. The suggestion I have to make is this, that Dr. Bryant be respectfully requested to read a paper before the next Association, containing his experience and views, as to the connection between uterine diseases and the different forms of insanity. The important bearing of this subject in successful treatment will, of course, be readily appreciated by all, and I doubt not the Doctor would read a paper that would prove highly interesting and instructive. Hoping my suggestion will meet his approval, I therefore, move he be requested to prepare such a paper for the next meeting of our Association.

The motion was seconded by Dr. Hughes, and adopted.

Dr. BRYANT. I heartily respond to the request, and will endeavor to have a paper on that subject at the next meeting.

Dr. Fisher called attention to the letter of Dr. Wm. B. Hazard, in regard to the change of management of the St. Louis County Lunatic Asylum, and, after the reading of the letter, Dr. Fisher offered the following resolution:

Resolved, That this body learn with regret of the retrograde steps taken by the Managers of the St. Louis County Insane Asylum, in regard to the management of that Institution—a course which, in view of the uniform experience of the past, can not fail to result disastrously to the welfare of the insane of St. Louis County. The division of authority and responsibility, virtually creates three heads for an Institution of such a peculiar character as an Insane Asylum. The small amount of personal attention required to be given the patients by the visiting Superintendent, and the short term of office must, of necessity, lead to weak and inefficient administration, and is as inconsistent with good government, as would be the appointment of three generals to the command of one army.

After discussion, the resolution was withdrawn.

On motion, the Association adjourned.

After adjournment, the members were driven in carriages to the elegant residence of Dr. W. A. Cheatham, where they spent an hour socially, enjoying his hospitality, and afterwards visited other points of interest around the city.

At 5 1-2 p. m., they were again driven in carriages to Ash Barracks, accepting the courteous invitation of General Pennypacker, to witness the evening drill and review, and afterwards returned to the city.

The Association was called to order at 8 p. m., by the Vice-president.

The Secretary read a letter from Dr. Sawyer, expressing his regret at not being able to attend this meeting.

The minutes of the proceedings of the morning's session, were read and approved.

On motion of Dr. Jones, it was resolved,

Whereas, It has formally been brought to the notice of the Association, that State and County authorities, having supreme direction of Institutions for the Insane, have, by law, departed from the spirit and tenor of the principles, and general regulations for their government, which, after observation, experience and mature deliberation, have been promulgated and recommended by this body, as judicious and humane, therefore:

Resolved, That we re-affirm former utterances of the Association, as fully expressive of our views as to the proper manner of conducting Hospitals for the Insane, and that we earnestly commend those utterances to the favorable consideration and regard of the Managers of Asylums throughout the country.

Dr. Jelly, from the Committee on Resolutions, presented the following which were unanimously adopted.

The Association of Medical Superintendents of American Institutions for the Insane, being about to close its twenty-eighth annual meeting, and its first in Nashville, would not do so without expressing the gratification of all its members, with their visit to this State and municipality, and their grateful acknowledgement of the cordiality with which they have been received, therefore,

Resolved, 1st. That we shall all remember, with pleasure and great gratification, the generous welcome to her borders given us by the Governor of the Commonwealth, and the interest with which we inspected the beautiful Capitol, and gazed upon the portraits of the great men, who living and dead, have made Tennessee so renowned in history; and that we shall bear away with us to our distant homes, the proud recollection of the simple and elegant hospitality accorded to us by the venerable Madam Polk.

Resolved, 2d. That our hearty thanks are hereby tendered to Dr. T. A. Atchison, President of the Board of Trustees of the Tennessee Hospital for the Insane, for the right hand of fellowship, so warmly extended, and, for a delightful evening in his family circle;—to our old confreres, Drs. Cheatham and Jones, for a renewal of old and pleasant associations; to the former for a charming morning, “at home,” and to the latter, for unremitting attentions and efforts of himself and Mrs. Jones, to render our stay here in the highest degree agreeable and profitable; and to Dr. and Mrs. Callender, for their warm greeting, their overflowing hospitality, their personal devotion to our enjoyment, and for an opportunity of examining, at our leisure, the comfortable and ample provisions for the care and treatment of the insane, in a hospital structure, worthy of the ancient name and fame of Tennessee, found not only in the light and spacious wards, and cheerful cham-

bers, but also in grounds and groves which nature and art have united to render beautiful and attractive, beyond those of any similar institution in the length and breadth of our entire land. All honor to a Commonwealth, which, desolated, weakened and impoverished by war, has provided so liberally for her insane, and still pours out so lavishly of her diminished treasure for the comfort and consolation of her most afflicted and helpless citizens. We commend, especially, the enlightened policy for determining the locality of her contemplated new Asylums, and the wisdom she has manifested in selecting at the same time, the Architect and Medical Superintendents of these monuments of her people's philanthropy.

Resolved, 3d. That our grateful acknowledgements are made to General Pennypacker, for a pleasant visit to Ash Barracks, and the compliment of a dress parade; to the Superintendent of the Public Schools, S. Y. Caldwell, Esq., to Judge Whiteworth, President of the Tennessee Manufacturing Company, and to Dr. Wm. M. Wright, Superintendent of the Penitentiary, for invitations which, the pressure of the business, and duties pertaining to our assembling here, alone compelled us unwillingly to decline; to the reporters of the Nashville press, for courteous attention, and accurate reports of our proceedings, and to the proprietors of the Maxwell House, for an elegant parlor for our meeting, and for prompt attention to the wants of our individual members.

On motion the Association adjourned to meet in Stockton, California, on the third Tuesday of May, 1875, at 10 A. M.

JOHN CURWEN, *Secretary.*

HOMICIDE—SUSPECTED SIMULATION OF INSANITY.

BY I. RAY M. D.

No matter connected with insanity makes a larger draft on the resources of the expert, than the task of deciding correctly in some cases of suspected simulation. This might naturally be expected where a sane person is performing his part with all the ingenuity and cunning which a life of criminal habits is apt to develop, but the difficulty is often none the less where the manifestations are very demonstrative and genuine; and the reason is, that however these may conflict with the results of one's own observations, no one profoundly impressed with a sense of the infinite diversity of nature, even in her wanderings, will be in haste to conclude that they are, on that account simulated. And the chances of reaching a correct conclusion are not increased by the disposition of the expert to forget that, in the very act of guarding against the deceptions of the patient, he is very apt to deceive himself. To add to his embarrassments, the opportunities for testing the mental condition may be very limited, and quite unsuitable. A few interviews with the party in his cell, with such information as attendants may give, furnish, perhaps, the only materials with which he must construct his final opinion. That they are often insufficient to warrant any stronger conclusion than a guess, is precisely what might be expected, and the fact does no discredit to the sagacity of the expert. And yet this is not incompatible with the other fact, that under the surveillance of a Hospital for the Insane, the true character of a suspi-

cious case can not fail, at last, of being correctly understood by any one of considerable clinical experience, and tolerable sagacity.

I have thought the following case worth relating, because it presents a rather unusual combination of traits, and, for that reason, may convey some useful hints to future observers.

In March, 1871, Michel Trimbur, with two or three other young men, was convicted in one of the courts of Philadelphia, of a heinous outrage upon a young woman, and sentenced to fifteen years imprisonment in the Eastern penitentiary. He was of Irish parentage, about twenty-two years old, of rather small stature, and with a countenance indicative neither of stupidity nor ferocity. The crowded condition of the prison rendering it necessary, to some extent, to put two in a room, T. and one of his associates in crime were assigned to the same room, with their mutual consent and satisfaction. And up to the last, they seemed to be on the best of terms with each other. On the morning of the 7th of May, 1872, when the keeper went to their cell with their breakfast, Michel said very quietly that Webb would not need any. On inquiry, Webb was found on the bed quite dead, with his head badly bruised. Michel immediately confessed that he killed him while lying in bed, with the board used for closing the ventilator. When asked how it happened, he said he rose early, and struck Webb on the head, several times, he making no resistance. When asked for his reasons, he admitted that they had had no quarrel, but said that Webb had frequently abused his (T's.) mother, and he would not allow any body to do that. Neither then nor subsequently, did he express any sorrow for what he had done.

Previous to his trial for this second crime, his counsel requested me to ascertain his mental condition, as there was some reason for suspecting that T. was crazy. The officers of the prison where I went for this purpose, informed me that no indications of insanity before the murder, had been noticed by any one, and that they first heard of it some time afterwards. On being asked what they had heard, I was told that while passing from one part of the prison to another, he looked upwards and said to the keeper, "O, what bright thing is that up there?" meaning the sun; and also that having made considerable noise during the night, he was threatened with some privation if he persisted in it, and accordingly he became quiet from that night forth. The officers regarded these two manifestations as mere make-believe, and had no faith in his pretended insanity. During my first visit, which was over one hour long, we conversed about the circumstances of his two crimes, about his family, his education, and employment, and about ordinary affairs and topics in which he might be supposed to be interested, and while he talked freely, without the least reluctance, not a word fell from his lips, that could excite a suspicion of insanity. Though not particularly deficient in understanding, he had obviously received but little education, had no regular employment, and his social surroundings had been of a pretty low order. He gave the same account of the murder which he did at first, and without any sign of regret. Of the first offense, he then and always subsequently, declared his innocence, and there was some reason to think, that in this, he spoke the truth, his only offense being that of keeping bad company.

A few days afterwards, I made him another visit. For some fifteen minutes, the conversation was very much like that of the previous visit. Then he rather

suddenly went to the farther side of his cell, and took from a shelf a cheap card photograph of a child, or young girl, which he brought to me, his whole manner exhibiting a sort of earnestness I had not observed before. This, he said, was his mother, the Virgin Mary, and forthwith he launched out into a stream of talk, consisting of wild, strange, incongruous notions, connected by no obvious bond of association. In this jumble of matter, in uttering which he needed no prompting, there was no repetition of words or phrases, and it was curious to see how a person who could not be supposed to have gained much command of language, could vary his modes of expressing such barren nonsense. The following specimen of his talk will give a better idea of it than any description possibly can.

"I give all of it to my mother. Neither is jealous, and she shall be my wife. I am going to be most a spirit. She needn't die for me and live as long as I live. She shall have as much to do with every thing as I do. She is Mary the mother. I am her third husband—will give her my writings. Jesus Christ was two or three hundred when he died. He laid right down and died. Nothing comes into this world with stronger eyes than I have. I have got to die for that person—any strong person, Lazarus. I am Lazarus, I am to have the strongest eyes in the world, the best hair, the best of every thing. Prettiest man that ever was born—made of the best stuff. Miss Wills was Moses' second wife. Mary, the mother of Jesus is to be my wife."

In the course of the next two months, I visited him twice, and obtained only a repetition of the same sort of discourse and behavior; and these were the materials, in connection with the facts already mentioned, derived from the officers of the prison, out of which I was to

form my opinion respecting the prisoner's mental condition; and the task was not an easy one.

Unquestionably, his exclamation about the sun was simulation. In no form of mental disease with which he could possibly have been affected, can we suppose such a lesion of the mental faculties as that would imply. He was not demented; he was not raving; he had no hallucinations; his perceptive powers were neither weakened nor perverted; and it was the only instance of the kind. This fact raised the suspicion of simulation in regard to all his crazy manifestations, some of which, certainly, were not calculated to remove that suspicion, though none were obviously incompatible with insanity. The entire correctness of his discourse in the first interview, the abruptness of the transition into a stream of wild and whirling words, and the peculiar character of the thoughts they conveyed, produced a first impression not very favorable to a conviction of his honesty. The last mentioned trait seemed indicative of a low grade of dementia more than any other form of insanity, and this seemed to be inconsistent with the clearness and vigor of the rest of his discourse. During my first visit, he was not aware of my function or purpose, but at my subsequent interviews, he knew at least, that I was a physician. This fact too, was a ground of suspicion, stronger to others probably, than to myself. So far then the tendency of his manifestations favored the theory of simulation.

On the other hand, a mature consideration of all the circumstances of the case convinced me that they presented nothing incompatible, necessarily, with the existence of real insanity. Men who have been much conversant with the insane in hospitals—not meaning those whose knowledge consists in having *seen* many

thousand patients—need not be told that sometimes, for one purpose or another, they make a show of being more crazy than they really are. They see what is going on around them, and if not too much occupied with their own condition, they need only a little power of mimicry and a sufficient inducement, to imitate it. In one of our regular hospitals—many years ago, thank God—it was one of the customary performances for the entertainment of visitors, to show off a big, double-fisted, unkempt, unshorn patient, acting the rôle of the furious madman. And he did it, if not very correctly, yet well enough to excite the applause of the lookers on.

Many insane do certain things as well as they ever did; they plan, contrive, anticipate, in furtherance of a special purpose. There is nothing strange or anomalous, therefore, in the fact of their endeavoring to act the madman; of course, in a phase of the disease different from that which they really exhibit. The criminal classes, to which most of these simulators belong, know as well as everybody else, that the plea of insanity is one of the dodges whereby people now escape the punishment of their crimes, and they may not forget it, nor neglect to act accordingly, when they become insane themselves. It may seem at first glance, a work of supererogation, for a man obviously insane to endeavor to impress others with the belief that he is the subject of another and even a very different kind of insanity. The mystery vanishes when we consider that usually, no insane person thinks himself to be insane, believing as they do, with extraordinary tenacity, that the delusions they entertain are gospel truths; while the folly of their actions is strictly in accordance with the requirements of the occasion, and both the delusions and the folly indicative as they think, of the soundest reason.

For the purpose in view, therefore, the rôle of the simulator is as necessary to them as to others. Thus, Trimbur, being unconscious of his own real insanity, but with mind enough to understand his situation, and to remember what he had heard about insanity in connection with crime, concluded to make a show of being crazy.

I have said that the style of his discourse resembled that of dementia—a form of disease not to have been expected under the circumstances—and therefore suspicious. Unusual, such a phenomenon certainly is, but I am not prepared to say that it is conclusive proof of simulation. We must be cautious how we consider the experience of any individual in so vast a field as the aberrations of the human mind, as having comprised every form and shape which they can possibly take. The larger our experience, the more are we impressed with the infinite diversity of nature, even in the domain of mental pathology, and all, too, under the control of inflexible law. A closer observation of the prisoner might have revealed some connecting links between the sound and unsound trains of thought, which would have rendered the contrast less extraordinary.

Again, it was a very significant fact in regard to his mental movements, that the perceptive faculties exhibited no aberration whatever, except the single instance first mentioned. Questions involving relations of time, space, distance, &c., were always correctly answered, and indeed, in regard to all ordinary matters, clearly beyond the sphere of his wild notions, there was not a sign of derangement, real or pretended. Thus he abstained altogether from the dodge—if I may use the term in lieu of a better—which naturally presents itself to the simulator. His object is to make an impression, and he chooses, therefore, the strongest and leastmistakable manifestations of disease—such as will be

known at once to all men. He says, perhaps, that he is a hundred years old; that a place near by is a dozen miles off; that he knows not at all, persons with whom he has been intimate all his life; and in short, he misrepresents the simplest matters of fact that happened under his observation. He may not show this trait in every particular, because he may be afraid of over-acting his part, and think his purpose better answered by holding up occasionally, but he will not entirely abstain from using the opportunity thus afforded for making an impression.

It must be borne in mind that it is the simulator's purpose—the part he has undertaken to perform—to appear insane, and consequently he is careful not to appear sane, especially on occasions when his ends would be furthered by a successful imitation. He even lays plans for obtruding his mental disorder on the notice of the observer, though exercising all his ingenuity, perhaps, to conceal his design. It is not very likely, therefore, that Trimbur, if he had shrewdness enough to undertake the task of convincing others that he was actually insane, would have allowed our first interview to pass without the slightest attempt in that direction. He might not have suspected my purpose precisely, but he could scarcely have helped suspecting that I had some purpose. Accompanied as I was, by the physician of the prison, by his keeper, and part of the time by one of the officers, it was an opportunity he would have been only too glad to use. Indeed, with the exceptions above mentioned, it did not appear that he exhibited any sign of insanity, simulated or otherwise, to any officer of the prison.

It is a circumstance also worth considering, that in his statements respecting the murder, when first discovered, and before he was likely to have formed any plan

of simulation, he made no attempt to palliate the deed, as a sane man probably would. He never pretended that there was any sudden quarrel between him and his companion, that the latter provoked and assaulted him, and that he acted in self-defense. Calmly and quietly, he declared that he killed him while lying in bed asleep, because he had abused his mother.

We are to bear in mind that, on any question of simulation, we are to take into the account the moral, intellectual, and social character of the party. A skilful attempt implies some knowledge of men and things, some notions, however crude, about insanity, some power of mimicry, and great tenacity of purpose. Most simulators have picked up from books or personal observation, some ideas of how insane people act and talk; and sometimes a knowledge of their antecedents will show the particular model on which their imitation is founded. Now no mortal could have been less qualified for acting the simulator of insanity than Trimbur. He was young, not very bright, with little education, his knowledge of the world was limited to a particular locality, abounding in the rough and rowdy element, and he probably had never seen an insane person in all his life. I found it difficult to believe that a person with such a record, could, by pure force of invention, achieve a jumble of thoughts so nearly resembling the utterances of the insane. And in recording them, as in the specimen above given, I found it impossible to follow him so rapidly as to get the vague, broken, indistinct, half-uttered expressions marking the transitions from one definite thought to another, and of which only those familiar with the insane, can have any adequate conception.

Here then were the reasons for and against the theory of deception, and had no attempt to deceive been made,

as I was obliged to think there had, I should not have hesitated to believe him truly insane. As it was, they greatly preponderated, but so long as there was wanting that test furnished by a more close and continuous observation of discourse, deportment, manners, freaks and fancies, than is implied in an occasional, formal interview, when the person is controlled and restrained by the presence of a stranger, and if actually attempting to deceive, summons all his resources for the occasion,—such an observation as he would undergo in the wards of a Hospital for the Insane,—I was not ready to relinquish every doubt. However strong the presumption in favor of the prisoner, complete confidence was unwarranted, under the circumstances. And so on the trial, in September, 1872, I testified that while the prisoner had every appearance of being insane, he might possibly be simulating, and that I had not had such opportunities for testing his mental condition as were needed for forming a certain conclusion. He was convicted of murder in the second degree, but his counsel applied for a new trial which, after considerable delay, was granted. On the 14th of November, 1873, he was tried again, and acquitted, on the ground of insanity. The medical officers and others connected with the prison had become so strongly convinced of his insanity, that their opinion was readily accepted by the jury.

In May last, I visited Trimbur in the jail. He had grown more stout in body, and more stolid in look. The keepers told me he had been uniformly quiet and well behaved, and neither exalted nor depressed. He was as ready to talk as ever, and his talk was the same sort of jargon that I heard before. He spoke occasionally of the Virgin Mary, though less of her being his wife or mother, but his favorite topic was the excursions he frequently made into various parts of the city. Among

those who came to his cell at one time or another, and took him out, he mentioned General Washington, General Grant, Adam Sharp, Mr. Down, "or some one just as they are sent from Heaven or court. The Virgin Mary sometimes because she is my aunt." When asked what he did when out, he replied that he kept a shop and sold things, and again to the same question, he replied, "you must do something to help Philadelphia." Running on in his way, he said, "Those people are all mixed up, all help get the world in order. When they get arrested, I make it very easy for them, I would like to get out of prison. Most all of them is in use—the best of them. Most in prison don't get out." The indistinct utterances, the rambling undertones interspersed among the more definite expressions, so characteristic of insanity, it is beyond my power to give. Again about the middle of August, I visited T. and found no change in his manifestations. If stopped in the midst of his jargon, and asked how old he was, how many brothers and sisters he had, his mother's maiden name, how far it was from a certain locality to a certain other, the names of some old associate, the answers were correctly given.

About this time, I first heard of an incident which, had I known it in the beginning, might have removed my doubts respecting the true character of the case. It seems that a week or two before the murder, T. was visited by his mother, who came away greatly distressed, saying to one of the keepers, that her son talked very strangely, as he had never talked before, and she was afraid he was getting crazy.

The history of the case here related, justifies me, I think, in drawing the following conclusions, viz: first, that Trimbur is now and was at the time of the homicide, really insane; secondly, that apprehending the

consequences of the act, he concluded to simulate the disease of which he was already the unconscious subject; and thirdly, that finding it produced no impression, or that his powers of deception were unequal to the task, he abandoned the attempt after one or two trials.

The above narrative furnishes a strong illustration of the difficulty of dealing with such cases in penitentiaries and jails. No one practically acquainted with the ways of the insane, need be told that such institutions furnish very inadequate opportunities for ascertaining the real mental condition of a prisoner suspected of feigning insanity. So far as it is confined to the manifestations during a special interview, he may escape detection, because he is fairly pitted against the expert, and the trial of his powers is very brief. In a hospital, on the contrary, he is observed much of the time, in every variety of circumstances, and liable at any time to be watched when he least suspects it. His manners, gestures, looks, habits, temper, conversation, may yield revelations more satisfactory than the wildest utterances; and the show of disease so well maintained by a careful and special effort, is constantly liable, under the influence of familiar circumstances, to slide into a natural deportment. For lack of any opportunity of this kind, I was obliged to withhold a positive opinion, notwithstanding my strong impression that I was dealing with a case of genuine insanity. As it happened, no harm was done, for the court, understanding the situation, purposely forbore to press the hearing for a new trial, the prisoner in the meantime becoming so obviously insane, that his acquittal was not resisted by the District Attorney. Every court, however, is not so considerate, and we can easily believe that in some parts of our country, Trimbur would have been summarily hanged.

It is highly desirable that the opportunity should always be furnished somehow, for subjecting such cases to a kind of examination long enough and close enough to remove every doubt. Some of them, surely might be satisfactorily investigated, even in the prisons, if the physicians attached to those institutions had some practical knowledge of the disease, and it were made their duty, as it never is now, to examine into their mental condition, for the purpose of giving an opinion on the trial. Why should it not be an indispensable qualification for the office, that they should be familiar enough with mental affections to entitle their opinions to some degree of respect?

STATE OF MISSOURI *vs.* ANTON HOLM, MURDER IN FIRST DEGREE.

BY CHARLES H. HUGHES, M. D.

In this case, Anton Holm, killed his wife, Ida Holm, in July, 1872, in St. Louis.

“The prisoner relied on insanity and provocation.”

* * * * *

“The jury found, after consideration of the evidence, that no insanity existed,” and rendered a verdict of guilty. Mo. Repts., v. LIV, S. C., 1873.

Pending the sentence, the counsel for the prisoner appealed the case to the Supreme Court, principally upon the ground that the prisoner did not get the jury to which he was entitled, two of the first twelve names having been omitted in calling the jury. For this reason the Supreme Court reversed the judgment of the Court below, and remanded the case. The Court did not “review the finding of the jury in respect to insanity.”

In the first trial of the prisoner, the defense of insanity was not sustained by the concurring testimony of recognized experts, though the facts as elicited on the first trial, tending to prove insanity, were substantially the same, as hereafter appears, and medical gentlemen pronounced the prisoner insane. The prisoner was again tried in July, 1874, and the jury, after being out less than an hour, returned a verdict of “not guilty by reason of insanity at the time of the homicide.”

The experts testifying in the case were Drs. Chas. W. Stevens, Wm. H. Wood, J. K. Bauduy, Wm. B. Hazard, M. A. Pallen, and the writer.

Their testimony was uniform and unanimous, both as to the kind and degree of insanity.

All of the above named gentlemen have had practical asylum experience with the insane, save Dr. Pallen.

Drs. Bauduy and Pallen testified upon the following hypothetical case, which was also testified to by the other experts, as a correct embodiment of the whole testimony, after having sat through the trial and heard all the evidence.

Drs. Stevens, Wood Hazzard, and the writer, testified that the prisoner was insane, both from the facts elicited on the trial, and as set forth in the supposed case.

The insertion of the hypothetical case, therefore, serves to clearly exhibit all the features of this important trial, and to abridge, at the same time, our article.

HYPOTHETICAL CASE.

"Suppose it is proved that a man is passionately attached to his wife, that he ardently loves her, that she proves unfaithful to him; that he finds her, or imagines that he finds her, almost in the act of adultery; coming to the house at an unexpected time, his wife comes to the door in her night gown, and he sees, or imagines he sees her probable paramour escaping; he, the husband, stabs her whom he so ardently loves, instead of the paramour, and after the deed, licks the dagger clean of blood; saying, afterwards, he did it because he "loved her so."

After the act, he carries the knife in his hand, or carries it strapped to his back, to a house where he had been accustomed to stay, and was well known; and the dagger thus strapped to his back is visible; he there sings a song and drinks some beer, talks so incoherently and strangely, that the woman of the house, who had known him be-

fore, notes the change, and thinks him insane; he says frequently to himself in an audible voice, while taking high and long strides across a large hall, differently from his usual walk, "Now she's got it; she swore I wanted to kill her, but I did not." These strides across the hall being repeated several times during the night, with the individual carrying a dagger clutched in his hand or strapped on his back, and the same expression, "Now she's got it; she swore I wanted to kill her, but I did not," being repeated over and over again during these walks; he talks all night to himself, audibly, and incoherently, imagining the lady of the house to be his mother, asking often if he was safe, and sleeps none. Immediately and for some days before the homicide, he has fever, in this condition begs to be admitted to his own house, but is excluded by his wife on three or four different occasions, the same evening.

He goes to work for a man, [Andrew Auer,] the day before the homicide, but talks and looks so strangely, that the man thinks him crazy, that he will set fire to his house, and threatens to send him to the Lunatic Asylum, pointing to it, and saying that is the place for him.

Suppose this man is overheard talking to the cow at the stable about his trouble, and praying to or by her, mentioning frequently the names of his wife, and milks the cow on his knees.

Suppose at this time that he puts the collar on the horse's neck, instead of placing the bridle on him, or the bit in his mouth, and kisses or attempts to kiss the horse, and walks the room during the entire night preceding the homicide, talking to himself, and has diarrhoea and fever.

Suppose on the same day of the homicide, a few hours before it, he enters a confectionery, calls for and

eats ice-cream, picks up a fan worth five cents, is about to leave the establishment with the fan without paying, his attention is called to the fact by the proprietor, when he claims the fan; is told by the proprietor he can purchase one for five cents, when he insists upon retaining *that one*, offering to pay fifty cents for the same.

Supposing on the day preceding the homicide, he goes into a strange lawyer's office, and makes free with every thing there, [Mitchell,] strips to his waist, washes himself in the lawyer's wash-bowl, wipes on his towel, and when asked where he came from, says, "it is none of your business," and altogether acts so strangely as to appear crazy to parties who observe him there, and when reproved for his audacious freedom, says, "Excuse me, I have so much trouble with my wife," and then, having finished his washing, washes and wrings out the towel, and washes out the pitcher and bowl.

Suppose at another time he was seen striking the air, and acting curiously and strangely, by another witness, [Emeline Fitzgerald,] two months before the homicide, and by divers persons, on sundry occasions, at different periods of time, running a long time before the homicide.

Suppose he goes into a store or bakery, and asks for pies or bread, and when not understood by the proprietor, says, "Do you call me a damn Dutchman."

Suppose this same man considered and pronounced insane by his wife sometime before the homicide.

Suppose him talking to strangers, and people who had no interest in the subject, about his troubles and his feelings, that he loved his wife, but that she didn't love him; exhibiting his wife's picture in the saloon or theater, weekly for many weeks, and saying continually or often, "I love my wife," making the impression of one not right in his head, upon many who saw him act and heard him talk.

Suppose such a man eating his wife's rotten tooth, or putting it in his mouth and biting it, riding a broom-stick about the yard; imagining himself an officer of a regiment, commanding his troops, and speaking to them as if he thought he was going into battle, telling them to be brave, &c.

Suppose him talking, singing, and laughing too, and with his wife, hugging and kissing her, and then jumping up and calling her a damned whore, and striking at her, and almost immediately sitting down again and singing and laughing, and talking at and with her as he did before.

Suppose him threatening to kill his wife with a syringe, holding it like a pistol, and by other acts and sayings making the impression on the minds of witnesses that he was crazy. [Schultz and Chandler.]

Suppose his conduct such as to create the suspicion of drunkenness upon others, who subsequently ascertained that he was not drunk. [Pauhl, M. McMurtry and Amspaugh.]

Suppose him accustomed to put his hands to his head and complain of its hurting him.

Suppose he had fever a week before the homicide, and acted and made the impression of being crazy. [Maud Ferguson.]

Suppose such a man employed in a Clothing House, and imagining the boys are plaguing and annoying him.

Suppose him looking foolishly into his employer's face and laughing without cause, when told to do a thing, and making an impression that he was drunk, when the witness who testifies to this, [Captain McMurtry,] afterwards satisfies himself that he was not drunk at the time.

Suppose this humble employé imagining and acting as if he owned the store, "run the machine himself," in witness' own language. [McMurtry.]

Suppose when sent out to distribute circulars, he would habitually go to but one or a few places, and forget to go to others to which he was sent.

Suppose in short, he becomes so changed in actions and manner and expressions, as to attract the attention of those who knew him best, and caused them to consider him deranged. Suppose he stabbed himself in the arm on one occasion, designedly. At about this time, and under these circumstances, he takes the life of his wife, whom he so strangely and ardently loves, takes her life openly and without effort at concealment, and after the deed, talks about her and the deed that he has done in the manner already mentioned; does not leave the city, goes to a place where he is well known, is seen and there arrested, while pacing the floor, and talking of his wife, a few hours after the homicide; acknowledges the deed by saying, "he had thrown the dagger out of the window," when search discovers it on his person.

Suppose his arrest grows out of the fact that a policeman heard him talking from a second story window, he, the policeman, being on the opposite side of the street, and hearing the repeated expression, "I stuck the knife into Sophie."

Suppose a few hours after he is arrested, and a few hours after the commission of the act of homicide, he is agitated and dejected; has a strong, corded, irregular pulse, cold sweats on his face; complains of feeling badly in his head; seems absent-minded; has to be asked a question several times, before his mind responds; puts his hands to his head repeatedly; acts like a person awakened out of a sleep; realizes what he has done when told that his wife is dead, and admits the act.

Suppose these facts proven to be true in regard to the prisoner, was he in your opinion sane and respons-

ible, or insane and irresponsible at the time of the commission of the homicide?"

This case is so plain, that the failure of the jury to recognize insanity in the first trial, could only result from the popular prejudice existing in relation to this plea of insanity in criminal cases. The prisoner's insanity was manifest to nearly all with whom he came in contact. He made the impression that he was "crazy," "not right in his mind," "insane," or that "something was wrong with him." All the witnesses, save two or three, believed him "deranged." Some, at first, suspected that he was drunk, but upon becoming better acquainted with him, became satisfied of their mistake. The prosecution was ably conducted upon the theory of intoxication—which, however, was not all sustained by the facts. The practical alienist will recognize at a glance about as many of the evidences of insanity, as are usually presented in one case.

The delusions alone are sufficient. "These," as Dr. Ray* justly remarks, "if genuine, can only spring from insanity." The strange and unnatural acts of the individual, which mark the departure from his former natural habits of thought, feeling, and action, mark the case as one of mental aberration.

One fact, not developed in the trial, was the calling of his wife Sophie—the name of one of his sisters—after the act of killing, and so continued to speak of her until arrested.

The only question in this case which would seem to present itself to a practical expert, is that of feigning. But the idea of feigned insanity must be excluded; feigning is always done with a motive, and that motive, in such cases, is to make such an impression as to secure acquittal. Those who feign insanity, rarely

* Ray's Med. Juris. of Insanity, 4th Ed. p. 157.

or never cease to feign it, until after a verdict is reached.

If Holm feigned insanity, he feigned it without a motive, and a motiveless feigning of insanity, like any other act without a motive, would be itself indicative of insanity, though not perhaps of the kind attempted to be feigned. The kind of insanity manifested by Holm, was that which criminals often feign, but they are not known to cease the attempt at feigning at the time when evidence of insanity is most needed to secure their acquittal. There was no evidence that Holm had ever been connected with an Insane Asylum, or that he knew anything about what constituted the essential features of the disease.

In this case, the prisoner's mental aberration culminated in the killing, and from that time began to decline. He had a delusion in regard to the poisoning of delicacies brought him by a friend, while in prison, and continued agitated, sleepless and dejected, for a short time, but during his appearance in Court, showed no signs of insanity, and at the present time, two years after the homicide, appears quite rational.

The issue of this case—the prisoner's life being saved only through the legal technicality which procured him a new trial—demonstrates how inadequate juries are to pass upon the question of insanity, unaided by expert testimony. One jury, hearing all the facts, clutches eagerly at the possibility of repeated intoxication, *not found*, and pronounces a verdict of guilty; another, upon the reproduction of the same facts, acquits.

The question of insanity is a question for practical medical experts, like any other question of clinical experience. It is one of disease, to be determined by the physician, who has become familiar with insanity in the hospital. "We must live with the insane," says

the great Esquirol, "in order to comprehend them," but the law still says otherwise. Any one may pass upon certain marked forms of insanity. The more manifest cases of mania, dementia, or melancholia, may be recognized by the non-experienced, but the more obscure varieties of insanity can only be safely determined by clinical experience. The recovery of Holm was only in accordance with experience in such cases. Within two years from the beginning of his attack, he recovered of the disease; pursuing the usual course, he would by this time have passed into a state of chronic insanity, or recovered.

A commission "*de lunatico inquirendo*" having been appointed by the Court, all who examined him—Drs. Stevens, Hazzard, Wood, and Hughes—pronounced him "at present rational," and the prisoner was liberated upon a writ of *habeas corpus*, after a confinement of two years.

What may be the further issue of this case, no one can with certainty determine. He may have another attack. According to Blandford, about three-fifths will have a second or third attack sometime in life. Still, we properly pronounce the insane recovered, and discharge them from our hospitals, and two-fifths or more of them, continue sane the rest of their lives.

Holm may never again be subject to so powerful an exciting cause. His insanity was not homicidal in the true sense of the term—the killing being only one of many insane acts—nor did he have any apparent organic disease of the brain, such as would justify an opinion that it was not safe for him to be at large, because of a strong probability of relapse.

It is a source of regret that the popular mind, and the mind of courts, are so ill informed on the subject of the curability of insanity, the general belief being that

recoveries among insane persons are exceptional, instead of the rule, and that the chances for the recurrence of an attack of insanity, and for permanent restoration, are, perhaps, about equally balanced. It is owing to this ignorance that experienced alienists—and the more experienced, the more liable are they to decide adverse to popular notions—are often censured for the apparent inconsistency of pronouncing a man insane at the time of the commission of an unlawful offense, and rational at, or after, the time of trial. The only remedy for this is to enlighten courts, juries and people, until the jurisprudence of insanity shall be made to accord with the facts of science and practical experience. When this is done, the plea of insanity will have its just weight, and real criminals, who feign insanity to escape the penalty of capital crimes, will go under proper surveillance, until their feigning is exposed, and they suffer the penalty of their deeds.

PSYCHOLOGICAL MEDICINE, CONSIDERED AS A SPECIALTY,

WITH SOME SUGGESTIONS AS TO THE AWARD OF DIPLOMAS
BY THE ASSOCIATION OF SUPERINTENDENTS OF
HOSPITALS, FOR THE INSANE.

BY R. P. HUGER, M. D.,
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The science of Psychology is developing so rapidly, and expert testimony assuming a position of such vast importance in Medical Jurisprudence, that this branch of medicine must soon become, if it is not already, a recognized specialty, as much so as Diseases of the Eye and Ear. It will naturally result from this that only those will be regarded fully capable of representing its most advanced views on the witness stand, and therefore entitled to the confidence of the community, who have devoted much of their time to the daily observation of the insane, and have thereby acquired that familiarity and, as Blandford says, "intuitive appreciation of insanity," which is as certainly possessed by the practical alienist as is the *tactus eruditus* by the obstetrician and surgeon. We are no more able to form clear and satisfactory views of Insanity without close and constant study of its victims, than a botanist is capable of arranging or classifying a new genus or order of plants, without correct knowledge of the organic structure, modes of inflorescence and other physical properties on which such classifications are based.

The most approved method of teaching ordinary medicine, at the present day, is to bring the student as much as possible into intimate relations with the sick,

thus recognizing the necessity of acquainting him, not only with the symptoms and treatment of the disease, but actual bed-side experience. Colleges rival each other in offering the greatest facilities for clinical observation, the student always infinitely preferring the hospital to the lecture room, the patient to the picture, and dissection to the map. This thirst of the student for practical information may be hailed as the most promising indication of the future progress of medicine and the advent of a well-educated, original and reliable class of physicians, who will reflect honor upon their calling, and force the public to distinguish the worthy practitioner from the vile pretender.

If clinical instruction then is so universally regarded as essentially necessary for the successful practice of medicine, should not personal association with the insane be a necessary qualification in him who would stand at the tribunal of Justice and testify in cases of supposed insanity, involving not only property, but liberty and life? So sensibly has the want of sound and trustworthy testimony been felt, and so heartily sick has the public become of the conflicting views of so called "experts," that it has already been proposed, in one of the States, to appoint Commissioners in Lunacy, to whom shall be referred all pleas of insanity.

The safety of the individual, as well as the peace and dignity of communities and States, alike demand that this important interest be placed in competent hands. The precise relation of insanity to crime, and the extent of responsibility in any given case, have ever been interesting and perplexing subjects to our best Judges and Jurists, and will continue to become more difficult and troublesome as our population increases and insanity is more freely pleaded as an excuse for crime. This matter must receive immediate attention. It will

not admit of longer delay or further postponement, for the innocent must be protected, and the guilty punished. Leading members of the legal profession, recognizing in it a subject, in the very nature of things, beyond their ken, are, as a rule, more than willing to leave the whole proposition to be worked out principally by medical men. As a proof of their sincerity in this respect we have only to examine reports of trials in cases of alleged insanity to find that, in nearly every instance, the verdict, *pro* or *con.*, has been determined by medical testimony.

How then shall the medical profession prove itself equal to the emergency, and worthy of the high trust committed to its care? Few men would allow their eyes to be operated upon by a person, however great his theoretical information, who had never performed nor witnessed those nice operations upon this delicate organ, when they could avail themselves of the services of a practical oculist. With at least equal solicitude should courts of justice seek to secure for the accused, the assistance of those, who by a thorough course of instruction and opportunities of observation are entitled to the respectful attention of the jury and confidence of the court. Indeed that judge would be guilty of an act of great injustice, both to the prisoner and the State, who would summon to his aid, as an expert, a physician who had perhaps never put his foot into an Asylum for the Insane, read through a standard work upon insanity, nor treated more than a dozen cases in his entire practice. He might with equal propriety send for examination, a stomach supposed to contain arsenic, to a person who had never tested for this salt since he left college, some ten or twenty years before. The testimony would be every bit as valuable (?) in the one case as in the other, perhaps in favor of the latter: for a few hours close study might go far to supply him with the necessary informa-

tion; but what juryman even then would not receive his report *cum grano salis*!

It becomes then the paramount duty of the medical profession to indicate proper persons who are fitted, both by special education and training, to be employed by the courts in cases of lunacy. As far at least as our country is concerned, it devolves upon the American Association of Medical Superintendents of Insane Hospitals to undertake the initiatory steps of bringing about this desirable reformation; for to it, in the eternal fitness of things, must sooner or later be assigned the task of solving this difficult problem. In our opinion success can only be attained by adopting one of two methods; the establishment of Medico-Psychological schools in connection with Insane Hospitals—where graduates in medicine can acquire a scientific, as well as practical knowledge of insanity, as has lately been proposed in Germany—or else, what would seem more feasible, the adoption, by the Association, of a system of conferring its diploma on such persons as are willing to submit to an examination, and who, having complied with all the requirements and studies demanded, are considered in every way worthy to receive it. Let the requirements for this diploma be so high, that none will seek it except those who are willing to exert all their powers to obtain it.

We would offer as a suggestion, that the examination for this diploma be conducted as follows: After a thorough examination of the candidate upon the principles of Psychology, let him be conducted, by a committee appointed for that purpose, into the wards of an Insane Hospital, and be required to show his practical knowledge of the insane, by classifying, after examination, a limited number of the patients, according to some well recognized system. This would open up a new field for

the praiseworthy ambition of a large number of young men; those especially who, having devoted several years of their professional life to the study of the insane, would have in this diploma, not only an unerring evidence of time profitably occupied, but a sure guarantee of excellence in this particular department of medical science. In a short time we would have in our land an important class of men, from which not only to select our future Hospital Superintendents, and Professors of Psychological Medicine in our Medical Colleges, but to which our courts of justice might safely appeal for that information so necessary in "tempering justice with mercy," and which would enable them to send the guilty impostor to the gallows or the penitentiary, and the afflicted lunatic to the comfortable home prepared for him by enlightened civilization and christian benevolence.

BIBLIOGRAPHICAL.

BOOK NOTICES.

The Physiology of Man, designed to represent the existing state of Physiological Science, as applied to the functions of the Human Body; AUSTIN FLINT, Jr., M. D., Professor of Physiology and Physiological Anatomy, in the Bellevue Hospital Medical College, New York. &c., &c., &c. Vol. V.

With this volume, Prof. Flint brings to a conclusion the work which he commenced eleven years since. The undertaking was one of magnitude and difficulty, as the literature of the subject has been largely published, not only in standard works but in monographs and periodicals, in foreign languages. The results obtained he has verified on the experimental table, and at the point

of the knife. For many theories and conclusions advanced, we are indebted to the patient labor and cautious observation of the author, who is always careful to denominate theories as theories, and facts as facts. This volume is an exhaustive summary of all the well established propositions and conclusions, in the important fields of the *special senses* and of *generation*.

The work will, we think, fully meet the expectations of the profession, and will take its place as a complete embodiment of the present state of physiological knowledge.

It is a volume of over 500 pages, uniform with the rest of the series, and contains XIX chapters. The typography is in Appleton's best style, which in itself is sufficient recommendation. The contents of the volumes of the series are, I. The blood; circulation; respiration. II. Alimentation; digestion; absorption; lymph and chyle. III. Secretion; excretion, ductless glands; nutrition; animal heat; movements; voice and speech. IV. The nervous system. V. Special senses and generation.

The work should be found in the library of every hospital and general practitioner. We commend it as exhaustive and reliable, and fully up to the times upon all subjects of which it treats.

TRANSACTIONS OF SOCIETIES, PAMPHLETS, &c.

Transactions of the Medical and Chirurgical Faculty of the State of Maryland. Seventy-fifth Annual session, held at Baltimore, Md., April, 1874.

These transactions constitute a volume of two hundred pages. They are very neatly presented; the typographical work is excellent, and reflects credit upon the Society and the printer. The contents of the volume, however, are especially worthy of notice and com-

mendation. The reports of the various sections reflect the progress made in their special branches, and present to the profession a condensed abstract of medical advance during the year. To the physician who has but a limited supply of periodical literature, this is a valuable source of information, as it places in comprehensive review before the mind, the facts of annual progress.

In the section on Surgery, we find noticed the new bloodless operation of Esmarch, and also a condensed report of the most recent views expressed regarding the nature of Cancer.

The report of the section on Anatomy, refers at length to the recent experiments of Ferrier on the localization of movements in the cerebral hemispheres; to Nothnagel, "On Experimental Researches upon the Functions of the Brain;" to Benedikt, "Upon the Innervation of the Inferior Choroid Plexus;" and to Hulings Jackson, on "Discharging Lesions of Disease." Dr. Parrish contributes a paper on "The Pathology of Inebriety," and Dr. Conrad on "Small Pox." There are other short papers of clinical interest. We may say that the Societies of many larger States do not present so interesting and valuable a record of their transactions.

Transactions of the Michigan State Medical Society, 1874.

This is a small, but interesting volume, and contains the address of Dr. Jenks, President of the Society, "A Report of Cases of Malignant Tumors of the Jaw;" "Observations on Several Practical Points of Ophthalmology;" "A Report of a Case of a Tumor of the Cerebellum," and other papers. "The Report on Ventilation of Dwellings of the Poor," by Dr. R. C. Kedzie, of the State Agricultural College, is an admirable paper, and contains most important and valuable information upon the subject of ventilation. The theories given are in

accord with the most advanced and strictly scientific views. So much trashy and impracticable matter has been written regarding ventilation, that it is really encouraging to find the subject presented in a way that can be easily understood, and readily carried into practice in the homes of the poorest citizens. We sincerely hope that the day may soon come, when the ventilation of all rooms will be considered as much a necessity, and be as well provided for, as that of protection from the elements.

Discussion of Prof. W. A. Hammond's paper on Morbid Impulse. Read before the New York Medico-Legal Society: April, 1874. Reprinted from the *Sanitarian*, August, 1874.

Recent investigations into the Physiological functions of the Brain.
H. R. BIGELOW, M. D., Hartford, Conn.

Recent advances in the diagnosis of Diseases of the Nervous System. H. R. BIGELOW, M. D. Reprinted from the *Detroit Review of Medicine and Pharmacy*.

Proceedings of the State Convention of Superintendents of the Poor, held in Rochester, June, 1874.

New Medical Law of the State of New York. STEPHEN ROGERS, M. D.

Medical Literature of Kentucky. LUNSFORD P. YANDELL, M. D.
Read before the Kentucky State Medical Society: 1874.

Direct Local Medication in the treatment of Chronic Catarrhal Inflammation of the Nasal and Pharyngo-Nasal Cavities. THOMAS F. RUMBOLD, M. D. Read before the Medical Association of the State of Missouri: 1874.

Atmospheric Electricity and Ozone, their relation to Health and Disease. GEORGE M. BEARD, M. D. Reprinted from the *Popular Science Monthly*, February, 1874.

A New Method of Treating Malignant Tumors by Electrolyzing the base. GEORGE M. BEARD, M. D. Reprinted from *Archives of Electrology and Neurology*.

Inaugural Address of the President of the Medical Society of the County of Kings, N. Y. ALEX. J. C. SKEENE, M. D., 1874.

A Report of the Reduction of two Cases of Chronic Inversion of the Uterus. Prof. JAMES P. WHITE, M. D. From the Transactions of the New York State Medical Society: 1874.

A case of Ankylosis of the Right Temporo-Maxillary Articulation, successfully treated by excision of the Condyle. JAMES L. LITTLE, M. D. From the Transactions of the New York State Medical Society: 1874.

Address before the American Medical Association, by the President, JOSEPH M. TONER, M. D. From the Transactions of the Association: 1874.

Smithsonian Miscellaneous Collection, Toner Lectures, No. III.
On Strain and Over-Action of the Heart. J. M. DACOSTA, M. D.

Address of John A. Dix, Honorary Chancellor of Union University, to the Graduating Class. June 24, 1874.

Nomenclature of Diseases, prepared for the use of the Medical Officers of the United States Marine Hospital Service, by the Supervising Surgeon. JOHN M. WOODWARD, M. D.

Clinical Report of the Lying-in Service at Bellevue Hospital: 1873. WILLIAM I. LUSK, M. D., Prof. of Obstetrics and Diseases of Children in the Bellevue Hospital Medical College. Reprinted from the *New York Medical Journal*: August, 1874.

SUMMARY.

Dr. Carlos F. MacDonald and Dr. Archibald Campbell, have resigned the position of Superintendent and Assistant Physician, respectively, of the Kings County Lunatic Asylum, at Flatbush, N. Y.

—Dr. James A. Blanchard has been appointed Superintendent, and Dr. Charles Corey, Supervising physician, to fill the vacancies caused by the resignations of Drs. MacDonald and Campbell.

—Dr. Robert F. Baldwin, of Winchester, Va., has been elected the Superintendent of the Western Lunatic Asylum, vice Dr. Francis T. Stribling, deceased.

—Dr. A. E. Macdonald has been appointed Resident Physician to the New York City Asylum for the Insane, Wards Island, vice Dr. Theodore H. Kellogg, resigned; also Lecturer on Medical Jurisprudence, in the Medical Department of the University of the City of New York.

COMMISSIONERS IN LUNACY, STATE OF MASSACHUSETTS.

—The State of Massachusetts, by an act of its last Legislature, created a Commission of Lunacy, and established the following as its special duties: "To examine carefully the laws of the State, concerning lunatics and their treatment; and second, to investigate the actual condition of the several Asylums of the State, and all matters pertaining to the condition of their inmates, their diet, restraint, health, comfort, liberty of communication, &c." Dr. Nathan Allen, of Lowell, and Wendell Phillips, of Boston, have been appointed Commissioners. They are instructed to report during the first week of the next session, the results of their investigations; to recommend changes in, or amendments to the Lunacy Laws; and also to make suggestions promotive of the comfort or welfare of the insane. It is not necessary for us to introduce either of these men to our readers. Dr. Allen has been known for years to the profession by his scientific investigation of medical and social questions, and has had an experience of ten years upon the Board of State Charities. The name of Wendell Phillips carries to all minds a conviction that his action will be characterized by honesty of purpose in the interest of humanity, without fear or favor.

LAYING THE CORNER STONE OF THE STATE HOSPITAL FOR THE INSANE, WARREN, PA.—The ceremony of laying the corner stone of the new Insane Hospital, for Northwestern Pennsylvania, took place on the 10th of September last. In a previous number of the JOURNAL, a full description was given of the location at Warren. Governor Hartranft was present, and made the opening address. The oration by Hon. G. W. Scofield, gives evidence of much research, and of a lively interest in the welfare of the insane.

Letters were read from Drs. Ray and Kirkbride, regretting their inability to be present, and expressing their interest in the undertaking. Dr. Worthington, of the 'Friends' Asylum, at Frankford, made appropriate remarks. It is estimated that 5,000 persons were present, and a degree of enthusiasm was manifested which augurs well for the success of the enterprise, and for the hold it has upon the people.

Much work has already been accomplished in opening quarries, preparing the ground and building foundations. The judgment of the Commission in choosing the site, and the economy of the purchase, securing the two hundred acres for \$17,000, were commended by all.

DEATH OF DR. FRANCIS T. STRIBLING, SUPERINTENDENT OF THE WESTERN LUNATIC ASYLUM OF VIRGINIA.—Dr. Stribling died after a brief illness, on the 23rd of July, 1874, in the 65th year of his age. He was born in 1810, in Staunton, Va., where he spent the subsequent years of his life. He was educated at the University of Virginia, and was the first medical graduate of that Institution. After graduating also in Philadelphia, he established himself in his profession in his native town, where he acquired an enviable reputation, and in 1836, at the youthful age of 26, was elected

a physician to the Asylum. In 1840 he was elected the Superintendent, which position he occupied till his death.

His management of the Institution, was such as to gain for it the confidence of the people and the medical profession, while his personal traits of character endeared him to his friends and associates, and the unfortunates under his care. Dr. Stribling was one of the "original thirteen" members of the Association of Superintendents of Institutions for the Insane. He attended but few of the meetings, though he always manifested great interest in its success. Under his charge the Institution increased from 72 to about 400 patients. In his earliest reports in 1844, and in subsequent years, Dr. Stribling urged upon the attention of the Virginia Legislature, the demands of the colored insane, and that suitable separate provision be made for their care. He continued to advocate the claims of this class for many years, and finally had the good fortune to see them recognized by the establishment of the Central Lunatic Asylum, near Richmond.

It is not our province or purpose to write any extended notice of the life and duties of Dr. Stribling. This task will fall appropriately upon some of the members of the Association, who have for so many years been connected with him as co-laborers in the same field. We would, however, express our sorrow at the loss to the profession, to the insane, and to humanity, of one whose life has been devoted to the interests of all, and whose monument is found in the Institution he so successfully conducted, and in the memories of those who experienced his kindness in the sad hours of their affliction.

—We have received the prospectus of the *Archives of Dermatology*, a quarterly journal of Skin and Venereal

Diseases. This is to appear about this first of October, and will be conducted under the editorship of Dr. L. Duncan Bulkley. Among the contributors are the names of well known writers upon the subjects to which the Journal will be specially devoted.

—As we go to press, we are deeply pained at the announcement of the death of Dr. Francis E. Anstie, the able editor of the *English Practitioner*, the more so, as it occurred from a dissection wound, while engaged in scientific research. He was but 41 years of age, and had attained an eminence in the profession held by but few, and in therapeutic medicine had no superior. He held the position of Physician to Westminster Hospital; Lecturer on Medicine in the Westminster Hospital School; and Physician to the Belgrave Hospital for Children.

THE DIET IN ALBUMINURIA (Hartsen.)—It seems natural to prescribe to patients with albuminuria, a diet rich in albumen, inasmuch as they are losing albumen by the urine. But the fact has often been noticed that the albumen is increased in the urine during digestion. It seems, in fact, that the albuminous substances are often absorbed by the stomach and pass directly out in the urine. As meat is most quickly digested, and its albumen therefore passes most readily into the urine during digestion, it seems more rational to prescribe a diet chiefly composed of bread-stuffs and fat. It is proper also to avoid too much fluid, as the albumen is generally in proportion to the quantity of urine. Even milk is not good in too large quantities; it should be given moderately, and with bread. A pure milk diet does not stimulate the stomach enough, and there is an insufficient secretion of gastric juice to digest it, hence it should in all cases of adults, be given with some solid.

AMERICAN
JOURNAL OF INSANITY,
FOR JANUARY, 1875.

THE DUNCAN WILL CASE.

BY L. RAY, M. D.

In 1849, there came to this country, from Ireland, Andrew Duncan, a land surveyor, and settled in Pittsburgh. He was accompanied by a part of his family, the rest following, three years afterwards. It consisted then, besides his wife, of seven sons and one daughter, the eldest being sixteen years old, and the youngest, two. Thomas, next but one to the oldest, and then twelve years old, obtained employment in a humble capacity, in an iron establishment, until, in 1859, he concluded to try his fortunes in the oil regions. At first he was unsuccessful, but in 1863, there came a turn in the tide which swept him on to riches. By means of a few oil wells and judicious land investments, he became possessed of nearly \$400,000 at the time of his death, eight years afterwards. In 1864, his health began to fail, some bronchial troubles then appeared which never left him; he complained of his throat, and went about much wrapped up. During the early part of this period of failing health, he had some attacks of asthma, and through the whole of it, he had the ways and looks of an invalid, though seldom confined to the house. In 1870, he went abroad

for his health, and while staying with his friend, Mr. James Lindsay, near Belfast, Ireland, in October, he had one of his asthmatic attacks, from which he rallied, and in the early part of November he left the vicinity of Belfast, and spent the winter in the South of Ireland. There, in April next, he again became ill, and went back to the house of his friend, Mr. Lindsay, where he remained until he died, first of June, 1871. On the 20th of May, eleven days previously, he executed his last will and testament, which was contested by the heirs-at-law, on the ground of mental incompetence, in the Circuit Court of Calhoun County, Michigan, held at Marshal, in October and November, 1873. The evidence relating to his mental condition may be conveniently considered under two heads, viz., that founded on the observation of his brothers and a few other persons, during the period extending from 1864, forward towards the latter year or two of his life, and that given by medical experts founded on the testimony in the case.

By the former, he was represented as having been very forgetful, capricious and irritable. They said that business worried him; that he would refer people who came to him on matters of business to his brothers, and that he complained much of his head. His brother James said that in 1865, "he noticed he was a different man from what he was apparently six months or a year before." "He was forgetful, unable to keep names, to recollect transactions, and was continually complaining of his head." "His memory seemed to be entirely gone, except for momentary transactions." "He was very absent minded, very fickle minded." He also said that the testator, when sick—referring to his attacks of asthma—was "very irritable." His brother Richard testified to the same effect. "At one time," he says,

"he complained of its [business] giving him a pain in the head; at other times, of its making him weak; again, after giving attention to it for any length of time, he would become very irritable." In 1869, these mental infirmities, he thinks, had increased. He was in the habit at one time of dictating his letters to witness, and then copying them, the copy being sent. His brother George says, "the only peculiarity I noticed in him, [date not given, except that it was previous to 1867,] was that he would tell me things about certain men there, and afterwards would deal with the men different from what I would have done under the circumstances." In "winter of 1866," he found his brother, the testator, quite ill at Oil City, with one of his asthmatic attacks. When asked by witness what was the matter, he replied that "the doctor intended to poison him." Then he asked, "who is that man," pointing to the person who had been attending on him, and said, "I wish you would put that shark out of the room." His brother William testified, that in 1864, he solicited him to go to Pit Hole and manage his business there, saying, "you know, William, I sometimes can't foot up four figures, and I forget one day what I do the next. You remember my hurt." About this time, he had forgotten a thirty days' note he had given for some firewood, and was angry with his brother for having paid it, until convinced by seeing the note that he had given it. Willis, who had advertised his farm for sale, says, the testator with a view to purchasing it, solicited a call from him, and in the course of the interview, he asked, several times, how many acres were in the farm, and its distance from the railroad. This was in the winter of 1864 and 1865. In the August following, they visited the farm together, when the same repeated inquiry about the number of acres occurred. On

this occasion, he told witness that he had got a blow on the head in the oil regions by the fall of a piece of timber; that he was taken up, and remained unconscious for 24 or 48 hours. "My head bothers me a great deal," he said, "and I don't know as I'll ever get over it, but don't you say a word to ma'am [mother] about it." "He acknowledged," said the witness, "that he was very forgetful, and that the effects of that hurt troubled him, and he was at times very unwell." In speaking of a famous cow, he said his mother "used to make lots of butter from that cow," and that remark he repeated, half a dozen times a day. One night on going to bed, he looked under the bed, into the closets and wardrobe, and the lower drawer of the bureau, under the washstand and into the cupboard, and then pulled out a pistol and placed it under his pillow, saying, "I want to be sure no one is here." At this time, in one of his asthmatic attacks, he suddenly manifested a strong aversion to the witness, though previously very sociable and pleasant, and would not allow him to enter his room. The next day he met witness, they shook hands, and became as good friends as ever. Wallace, who knew him slightly in 1870, called on him to get him to subscribe to a new railroad, and thought "he did not appear like a man of very firm decision of character." Collier, who accompanied Wallace, says, "he seemed to be a very cautious man, so much so that it bordered on timidity." They both say he complained of his head, and wished not to be "bothered with business." Andrus says that at some society meeting, testator was asked to serve on a committee, which he declined, saying, "I do not want to trouble myself with any business; my head troubles me." Hubbard, an assessor of taxes, asked him for an inventory of his property, when he, after mentioning one or two pieces,

hesitated, and said, "you will have to see Richard." Again, he went to see him about some insurance business, while his house was repairing, when he said, after asking one or two questions, "I am all confused about the matter; my house is turned upside down; you will have to see Richard." Addington went with him once to look at a piece of land, and while stepping across a ditch he slipped, and said immediately "he did not want that part of the land, did not want anything to do with it." He once asked witness to do some figuring for him, because it confused him. "There did not seem," says the witness, "to be much continuity of thought." Pixley says of him, that in 1865 and 1867, he would ask the same questions over and over again, and complained of a roaring in his head. Morse says he spoke to him about his trouble with Willis, and he replied that he did not remember it. Colvin says that testator asked him in 1867, to see Brown and ascertain what he, B, would sell his farm for, and the next day had forgotten all about it. Halbert repaired his house in 1869, when he inquired several times the amount of the bill. Hoyt repaired furniture for him, and says that in giving orders, he was very absent minded. Jimmerson, 1866 or 1867, "saw something peculiar in his manner and conduct." He would pace up and down the room, holding his hand to his head, and never seemed to notice people then. Kellogg thought "he had not much stamina of character." Rowell says he failed to enumerate all his property to him, when he, the witness, was inquiring with reference to income tax. He says they drove over to Coldwater, in 1870, to attend a railroad meeting; that he was moody and silent all the way over, and very social and jovial, all the way home. Johnson says "he would tell me things to day, and to-morrow forget all about them." Testator

said "his health was so bad, he did not think he was fit do business." Crane went to him about a bill for lumber, which he promised to pay if right; that he went a second time, two or three weeks afterwards, when he had forgotten all about it. Pugsley says he once rode with him, three-quarters of an hour, when he frequently put his hand on his head, and asked several times if he was an old resident. Raymond mentions an instance of forgetfulness, and says he seemed very absent minded.

This is the case of the contestants so far as it depends on proof of mental impairment, previous to his last illness. Every remark made by their witnesses, every fact given by them, having any bearing on this point, are here faithfully presented, and they certainly fall very far short of what the occasion required, taking them with the smallest abatement for mistake or high coloring. That he may have suffered several years from the blow on the head, as indicated by pain and uneasiness; that, in consequence, attention to business may have sometimes so worried him, as to induce him to put it off upon others when practicable; that it led to some lapses of memory; and that, in connection with his asthmatic troubles, he was occasionally irritable and cross,—all this may have been without implying any impairment of his business capacity. This was abundantly proved by the evidence on the other side. It was testified by a considerable number of persons who had had more or less intercourse with him during this period—some in matters of business, some in casual conversation, some in social gatherings where he took a leading part—that they had observed no forgetfulness, nor any other mental defect, and regarded him as a man of average intellect. Bishop Simpson had known him for many years, and during the latter part

of his life had had considerable intercourse with him, without observing any of these indications of mental impairment. Neither did Mr. Long whose house he made his home when in Philadelphia, and with whom, of course, he must have been quite intimate, observe any. Indeed, it was during this very period when he is represented as having been so forgetful and unfit for business, that he made the greater part of his fortune. On this point the testimony of Prather was remarkably significant. He and his brother formed a partnership with testator, in 1864, which continued several years, during which they made leases, bought and sold property, and obtained an interest in an oil farm, "which transactions," he says, "were made by Thomas G. Duncan himself." He got up the plan on which Pit Hole City was built, in 1866, and he was an active participant in settling up their interests in the oil farm, involving about \$1,300,000.

This kind of testimony renders it certain, that the forgetfulness, worry, irritability, and petulance mentioned by the contestants' witnesses, were of a trivial character, affecting not at all his judgment or capacity for business. Indeed, much less reliance was placed on this evidence, than on that of the medical witnesses. These gentlemen, eight in number, one of whom is a professor in a medical college, some well known beyond their immediate neighborhood, and all with a respectable standing in their profession, declared that the nature of the testator's disease incapacitated him for any such exercise of mind as is required in the making of a will. The office of the lungs, they said, is to purify the blood by eliminating such portions as are no longer fit to be used, and receiving fresh supplies of oxygen from the air. The testator's lungs were found after death to have been rendered by disease in-

capable of performing their special function to such an extent, that the blood could not have been properly purified, and that the brain, which received it, must have been poisoned by it, and consequently incapable, in the nature of things, of anything like healthy mental exercise. Before discussing this opinion, it will be necessary to examine the foundation on which it rests.

Dr. Aickin of Belfast, who attended the testator, states in his deposition, that in October, 1870, he found him suffering with cough, dyspnœa and bloody expectoration, and "discovered that congestion existed to some extent in the upper lobe of the right lung." On the 28th of April, 1871, the same train of symptoms returned, accompanied by congestion in the upper lobe of the right lung, and also at the back and lower part of left lung, together with a mucous râle, in the front and upper part of the left lung, with weak and intermitting action of the heart. On or about the 20th of May, he says, "there was dullness on percussion under the right clavicle, and on auscultation, mucous râle was audible, and the same sign appeared at the lower lobe of the same lung; on deponent examining the left lung, a very feeble respiratory murmur was audible down along the side of the scapula, and also in front, beneath the clavicle. On percussion the whole of the left side of the chest was perfectly dull." In another place he says that "there was some sound indicating presence of emphysema," below the right clavicle.

The autopsy revealed the following conditions: "the rigor mortis has not passed off, the body and upper limbs are much emaciated, the feet and legs are very cedematous and pit on pressure. Chest—the left pleura is distended with an enormous quantity of serum, so as to flatten the lung almost to a condition of carnification, the pleura, both costal and pulmonary, is coated with a

very thick deposit of flocculent lymph, at a few points, especially, posteriorly, adhesions exist between the pulmonary and costal portions of the membrane. The upper part of the lung is firm, evidently air can not have penetrated to many of the vesicles for some time. The greater part of the lower lobe is in a state of hepatization, puriform secretion at points. On the right lung there is some emphysema of the upper lobe, the base is hepatized, but not to the same extent, nor is it so far as the third stage, as on the left. The heart is large and very soft, it weighs fully fourteen or sixteen ounces, its muscular texture is extremely soft, and the walls of each of the cavities are thinned, the left auriculo-ventricular opening is very much contracted; it will not do more than permit the passage of my index finger; the bicuspid valves are very much infiltrated and thickened with a deposit of a bony hardness, the aortic opening is of a normal size, its valves are infiltrated as described, but scarcely to the same extent. The liver and spleen are healthy. The kidneys would certainly weigh five or six ounces each, they are healthy, but congested. The other abdominal viscera do not require observation. The brain is healthy, there is some opacity of the arachnoid on the upper surface of both hemispheres."

It was these effects of disease as discovered before and after death, which led these gentlemen to express the opinion in the broadest and strongest terms, that the mind of the testator was incapable of that continuous and independent action required in making a will. That this opinion is entirely unwarranted by the well recognized truths of physiology and pathology, I shall now proceed to show.

The very considerable diminution of the breathing capacity of the lungs revealed after death, does not

imply that, in the very nature of things, the blood was imperfectly purified on the 20th of May, 1871, or at any time, except at the closing hours of life. This notion that the blood sent to the brain was loaded with carbon, was founded on several fallacies respecting the parts performed by the lungs and some other organs in the animal economy, and on a gratuitous assumption respecting the progress of the disease.

On the side of the proponents, nine medical witnesses appeared, including the writer, most of them justly eminent as teachers and practitioners of medicine. They insisted chiefly on that well known law of the animal economy, whereby organs engaged in the performance of kindred offices, may, under stress of disease or other peculiar circumstances, assume, to some extent, the functions of one another. This *compensation of function*, as it has been called, is observed every day by the practicing physician. Very close is this relation between the lungs, skin, liver and kidneys, in the performance of the common duty of relieving the blood of its effete particles. When the secretory action of the skin is interrupted, the lungs or kidneys, or both, take on an extra amount of duty, and when it is increased beyond the normal quantity, the kidneys respond to this unusual activity, by secreting a smaller quantity of urine. If the function of the liver be deranged, highly carbonized products make their appearance in the urine. When the kidneys fail to eliminate the proper amount of urea, it may be found in the perspiration or in the evacuations from the intestines. And so, too, when the lungs fail to excrete all the carbon from the blood, according to the requirements of the economy, the skin increases its secretion of carbonic acid.

There are other considerations involved in this question, which were entirely disregarded by the contestants'

witnesses, and which could not very well be presented on the witness stand, in a thorough and orderly manner, by those on the other side. By the former it was assumed, for their starting point, that any diminution of the normal capacity of the lungs must necessarily be followed, to that extent, by imperfect purification of the blood. This kind of logic, applicable enough to mechanical contrivances, will hardly answer here. The animal organs are so constituted that they can adapt their working power to the necessities of the occasion. Without this provision, life could scarcely endure; but with it, it meets successfully the shocks of accident, imprudence and disease. Thus the heart may double the number of its pulsations for days and weeks together, and then subside, without harm, into its normal rate of activity. The stomach, when forced to the task may digest twice the amount of food which the system requires, without contracting dyspepsia or inflammation. The skin remains sound and fit for its duty, whether pouring out the matter of perspiration in streams, or in particles too minute to be visible. For years together, the kidneys, under the stimulus of certain medicines or drinks, may secrete far more than the normal quantity of urine, without any appreciable damage. Probably, no organ possesses a greater amount of this reserved power than the lungs. The twenty inspirations per minute, sufficient for every purpose, in a person at middle age, and in complete repose, may, under the pressure of febrile excitement or violent exercise, be raised to thirty. Tubercles, abscesses, indurations, may waste their substance, and fashionable modes of dress may impede their motions, while they still continue to act with no sensible diminution of their allotted part in the economy of the system.

One has not to search very far to find this fact of reserved power in the lungs clearly set forth, for it is recognized in every modern book on physiology. Turning over the leaves of the last one out, Dr. Austin Flint's, we find it stated that while the average volume of breathing air, in a man of ordinary stature, is twenty cubic inches, it may, under excitement, rise to seventy-seven inches. In the same work it is stated that the extreme breathing capacity, by which is meant the volume of air that can be expelled from the lungs by the most forcible expiration after the most profound inspiration, may be diminished ninety per cent., in phthisis pulmonalis, and life still be maintained. The late Dr. John Gorham of Boston, once made an autopsy of a man who died after a few days illness, not involving the lungs, in whom one lung was found shriveled to half its normal size, and so solidified as to be perfectly impervious to air. His wife declared, that with the exception of a bad cold some dozen years before, he had suffered no ailment that could be referred to the chest. And yet this man belonged to a musical band, and played on the French horn up to the beginning of his last illness.*

So too the records of clinical pathology are full of illustrations of this truth. In such works as Broussais' *Histoire des Phlegmasies*, and Andral's *Clinique Medicale*, the reader will find scores of cases in which the lungs were reduced, by the ravages of disease, to one-half or less of their normal capacity, while not one word is said about coma or delirium, except, perhaps, in the final hour. An autopsy of a subject of chronic phthisis, furnished by my friend, Dr. J. S. Parry, of this city, tells the same story. "In the upper lobe of the left lung was a cavity nearly as large as one's fist, filled

* New England Jour. of Med. and Surg., October, 1823.

with mucous and puriform matter. Below this were several smaller cavities filled with the same substance. The remaining portions of the upper lobe were filled with yellow, cheesy deposits, mixed with miliary tubercles. The lower lobe was filled with the same cheesy masses, mingled with miliary granulations. In the apex of the right lung was a cavity about half as large as that on the opposite side. The whole upper lobe was filled with cheesy deposits and riddled by small cavities, among which were some miliary tubercles. The lower lobe contained many pneumonic deposits and miliary tubercles, but in no place had the former begun to soften. This portion of the organ, which was the only part that crepitated on pressure, was deeply congested." Here was a pair of lungs reduced to, at least, one-quarter of their proper breathing capacity. And yet it is recorded of this man, "that up to the time of his death, his mind was perfectly clear, so that he was able to make his will, and give directions in regard to his business."

There is another point in the pathological aspect of the question, which, though utterly ignored by the contestants' experts, is fatal to their conclusion. The testator was incompetent, they say, because in the condition of the lungs as presented by the autopsy, the blood could not have been purified. This implies, of course, that the lungs were in the same state on the 20th of May, when the will was executed—with as much hepatization and congestion, and as much imperviousness to air—as they were found to be twelve days afterwards. That this is an assumption, totally unwarranted by all our knowledge of diseased action, no pathologist really deserving the name, will deny. It would be a thing unprecedented, if there had been no progress of the disease during the last ten or eleven days of life.

It is a well recognized fact that the three stages of pneumonia, as described by writers; may be completed within a few days, and these gentlemen, let us bear in mind, strongly insisted that this was a case of acute pneumonia. It will be seen, presently, that the dispositions of the will, with a few exceptions, were embodied in a will which was executed on the 10th of May—ten days before—and surely, it can not be contended that the condition of the lungs, as revealed by the autopsy, had existed for twenty days. Legally, of course, that first will is without effect, but pathologically considered it strongly confirms the validity of the final will. So that if there was any period when the disease rendered the decarbonization of the blood impossible, it could not, in all probability, have been on the 20th of May, and much less on the 10th.

It is obvious enough, without farther discussion, that the testator's case, medically regarded, is only an illustration of that well known law of the animal economy, whereby an organ having a considerable range of function, may become incapable in one sphere of its activity, and yet remain perfectly competent in others. Thus, Mr. Duncan, though quite unable on the 20th of May, to walk a thousand miles in a thousand hours, was as competent to make his will as he ever was in his life.

If this repetition of elementary truths, which every physician may be supposed to have learned during his pupilage, may seem like a trifling with the understanding of the reader, I need only say in excuse, that a pathological dogma, ignoring them altogether, served as a pretext for annulling the exercise of one of the most sacred rights of men.

The reader must have already anticipated the question whether there was anything in the circumstances connected with the will to furnish the slightest support

to the contestants' theory—for it was nothing but a theory—and in reply, I am obliged to say, nothing, absolutely nothing. On the contrary, the whole transaction was singularly free from suspicious circumstances. The dispositions of the will, with one or two exceptions, originated with himself, many of them are in accordance with previously expressed intentions, a considerable length of time was taken to perfect the instrument, and he was surrounded by friends who had no views adverse to those he might be supposed to have entertained respecting the disposition of the great bulk of his property. If he was incapacitated by carbon in his blood, he must have manifested either coma or delirium, as no other mental disturbance has ever been known to result from that cause. If it be shown that neither was observed in the whole course of the disease, except perhaps in the last hours, then the carbon theory must be abandoned altogether, and resort must be had either to delusion, or to that general weakness and hebetude of mind on which undue influence can be easily exerted. Let us see if the circumstances attending the making of the will furnish any more indication of these mental conditions, than the truths of physiology and pathology do of undecarbonized blood.

It appears that the testator went to Europe in 1870, and while visiting Mr. James Lindsay, residing near Belfast, Ireland, with whom he had been previously acquainted, had one of his asthmatic turns; that he apparently recovered and spent the winter in the South of Ireland; that in April, 1871, he returned quite ill to Mr. Lindsay's; that about a month before his decease, he expressed to Mr. Lindsay a wish to make his will, and asked him to ascertain if there was a lawyer in Belfast who understood American law; that Lindsay called on Dr. James Rea, the American Consul,

from whom he obtained the form of a will from an American book; that the testator declined acting just then, but on the 8th of May, requested Lindsay "to take down particulars for the making of his will," which he did the next day; that from these instructions, a will was drawn by James Stewart, clerk of a solicitors' firm in Belfast; that the clerk then called "and remained alone with the testator for a considerable time," and then "came down into the parlor and engrossed the will;" that witnesses were then called in, and the will duly executed. Mr. Stewart says that various alterations of little importance were made, some at his suggestion, and some at the testator's, and at last, no other person being present, he asked the testator "if the draft will was satisfactory, and whether it carried out his wishes," when he replied to both questions, affirmatively. He also asked testator "if there was any undue influence brought to bear upon him to induce him to make his will in the manner proposed, to which he replied, 'none whatever, my brothers have treated me badly, and there will likely be litigation with respect to my will, as I am sure they will be displeased.'"

To his brother Francis, he gives \$5,000, and to Richard, \$10,000. To his brother George, \$5,000, and all his property in the oil regions, together with his interest in Pit Hole City, and the Town of Plummer. To his brother James, he leaves an estate estimated to be worth about \$11,500 "together with sufficient to pay for a gardener and two female servants, after his death, to be given to my brother George's oldest child, should my brother James die before said child would be twenty-one years of age, then the trustees to let the same, and the proceeds to be properly secured for him when he comes of age." His brother William and sister, Mary

Jane, he says, "are already provided for." To his mother, he gives a yearly income of \$2,500, to be obtained by the sale of various estates in Ohio, Illinois, &c., together with his house in Pittsburg, "to be furnished at an expense of \$5,000." To Fanny Howard, he gives \$10,000; to William Jackson, \$20,000; to William Wilson and Charles Wilson, \$10,000, each; to Miss Sarah Prather, \$30,000; to Ann Yorke, \$10,000; to James Lindsay, \$10,000; to his physician, Dr. Aickin, \$3,000; to Bishop Simpson, \$40,000; to James Long, \$30,000; to his two daughters, \$10,000 each, and to his two sisters, \$15,000 each; to the Methodist Church of Battle Creek, to pay off a debt, \$10,000; to the Methodist Church of Pit Hole City, for remodeling the church, \$10,000; to the Methodist Church in Plummer, for finishing off the church, \$25,000; to the Methodist minister, Leach, if alive, \$5,000; for a monument over his father and himself, \$30,000. After providing for his just debts and funeral expenses, he provides that the residue of his estate shall be applied to whatever religious Methodist object his executors may think best. At the suggestion of Mr. Stewart, he provided that if any of the parties named in his will should contest or dispute the validity thereof, the bequests to such parties should lapse and form a part of his residuary estate. Accompanying the instructions for the first will was a schedule of his property, indicating the various places where he owned real estate, with their estimated value, and also various securities with their value and the place where they were deposited, specified.

Such were the dispositions of the will made on the 10th of May, and all the circumstances of any significance attending it. As the two subsequent wills varied from this in only a few particulars, we may as well examine the dispositions of this the first will, because if

they present no indications of mental unsoundness, it can hardly be supposed that they would produce any different impression when found in a subsequent will, while, if they should present such indications, the fact would be equally damaging, of course, to any subsequent will in which they occur.

The first thing that arrests attention, is the smallness of the bequests to his brothers, indicating as they seem to, some lack of filial affection, calculated to excite suspicion. That he had reasons for such action is abundantly shown by the testimony in the case,—reasons which, however inadequate they may appear to others, show no marks of folly, and are such as have shaped the descent of many an estate. He was not on good terms with his brothers. He was displeased with their conduct; and, whether he was too exacting, or they too careless of his wishes, the feeling which it engendered was of the kind not likely to enhance their claims on his bounty. To Mr. Lindsay, he said, "I have been badly treated by my brothers," and, of his elder brother, James, he said, "that he had given him upwards of fifty thousand dollars already, and that if he had all the money he had he would soon run through it." He also told Mr. Lindsay that two of his brothers, [Frank and Richard] once came into his room and threatened to throw him out of the window, and that it was in consequence of their bad treatment that he got his first attack of hemorrhage. To leave them money, he said, would be no benefit, but rather an evil to them. With his brother William, to whom he gave nothing, he had had some business relations which led to no good feeling on his part. The evidence shows that he thought his brother had dealt unjustly by him, and that for some time before his death he broke off all intercourse with him.

The other legatees were mostly persons in whom he had become more or less interested by habits of familiar association, by favors or services received, or by sentiments of mutual respect and sympathy. Fanny Howard is a little girl, whose acquaintance he made while visiting his brother James, in Ohio, near whom her family resided. He was highly pleased with her ways, manners and little accomplishments. Charles Wilson was a fellow-workman with him in the Novelty Works, before he went to the oil regions. William Wilson he became acquainted with in Plummer, and they worked and sympathized together in the church and Sunday School. With William Jackson he got acquainted in Pittsburg. He was a blacksmith, and had lost the use of one eye. Mr. Leach was a Methodist preacher with whom he had become acquainted. Miss Prather is a sister of his partner, when he lived in Plummer; and in the course of a familiar and frequent intercourse with the family, he became acquainted with and interested in her. With the Lindsays he had been on intimate terms, making their house his home, in health and sickness, receiving from them, care and attention, and kindness that could not be purchased. Dr. Aickin was his physician, and as testators sometimes do, he remembered the doctor in his will. With Bishop Simpson he had been acquainted many years, meeting him from time to time, soliciting his advice, conferring with him on matters of mutual concern, and always professing the strongest admiration of the Bishop's character. With Mr. Long and his family he had been intimate for several years, making his house his home whenever he was in Philadelphia. In the churches, for the advancement of which he provided, he had been strongly interested. He had worshipped in them all, and one of them he had helped to build.

So far, certainly, there seems to be no ground of suspicion. The testator devised his property, after the usual manner of men. For his mother, to whom he was strongly attached, and for the memory of his father, he provides most liberally. Upon his brothers he bestows as much as he thought they would properly use. A part of his fortune he devotes to public purposes, selecting those in which he had been most concerned, both as a matter of personal feeling and regard for a sacred cause. The rest of his fortune he distributes among his friends.

The next day, soon after breakfast, Dr. Aickin says he found him in a very excited state, walking up and down the room, having been smoking stramonium by his physician's direction. Expressing a wish to see Mr. Lindsay, that gentleman came in, when the testator said to him, "have you got that deed," referring to the will he made the day before. Having obtained it, he looked over it attentively, and then tore it in pieces in an excited manner, saying, "Gentlemen, you must excuse me, I can not do this," or words to that effect. The next morning he told the Doctor that he destroyed the will, because "there were sums of money left by it to parties which he would not like his relatives to know of, as the amounts were out of proportion to the position in life of the persons to whom they were left." Four or five days after, he requested Mr. Lindsay to have his will made again, and on being asked if he wanted any changes made, he directed that the names of Fanny Howard and Charles Wilson should be omitted. On being asked if he wished for any other change, he said, no. Mr. Lindsay then said to him, "I think you have left too little to your own family;" "I think you should make up your mind to die in charity with your own friends." He replied that they did not deserve it; they

had treated him badly, and money would do them no good, but directed that \$5,000 should be inserted for his brother James, \$5,000 more for his brother Frank, and \$10,000 for the use of a blind daughter of his brother James. This will was duly executed on the 16th of May.

Dr. Rea, American Consul at Belfast, who was called in by Mr. Lindsay to witness and authenticate this last mentioned will, says he asked testator if he apprehended any contest over his will, when he replied that he did apprehend it. He thought his brothers might contest it because he had not left them all his property, adding, "my reason for not leaving them more, is that they are not worthy of it, and it would do them more harm than good, for whilst I have been earning money, they have been swinging around me, instead of trying to earn for themselves." Whereupon the Doctor gave it as his opinion that there were two legacies in the will that might, under such circumstances damage it, as possibly tending to prove undue influence, naming the legacies to Mr. Lindsay and Dr. Aickin. To this the testator replied, "then they must come out of it," and directed the Doctor to have a new will drawn, precisely similar in every respect, with the exception of those two legacies, saying at the same time, "I consider those legacies as justly due those gentlemen, and I would be very glad if I could give them the amount in any other way." The Doctor then suggested that he might give them promissory notes for the same sums, which he immediately decided to do. Accordingly, another will was drawn, precisely like the last, except that these bequests to Mr. Lindsay and Dr. Aickin were omitted, and was duly executed on the 20th of May.

In regard to the execution of this will, the testimony of Dr. Rea is remarkably significant. He says, "hav-

ing finished the reading of the will, deponent asked testator 'if that will was entirely to his mind,' to which testator answered, 'yes, entirely to my mind.' Deponent then asked testator whether he had been moved by any ecclesiastical person or persons, to make certain of the bequests to ecclesiastical persons and for ecclesiastical purposes contained in the will, to which testator answered, 'no, that he had made them of his own free will and volition, without any suggestion from any other person.'" Dr. Rea also said that he visited the testator every day from the 20th, as long as he lived; that they often conversed about the will, and that the testator always declared that he was perfectly satisfied with it.

Depositions were submitted to the jury, of the subscribing witnesses; of the person who drew the wills and attended to their execution; of Dr. Rea who became acquainted with the case by virtue of his consular office; of an old friend, the Rev. Robinson Scott, who visited him occasionally during his illness; of Mr. and Mrs. Lindsay; and of his physician; and they all declare that, to all appearance, the testator was perfectly rational and in possession of all his senses, except during the last two days of his life, when his mind occasionally wandered; nor was there a single syllable of testimony of a contrary character. Certainly, then, there was no coma nor delirium, but it does not necessarily follow that there was no delusion. The testimony regarding it was only negative, but that must be considered as conclusive, in the absence of any evidence the other way. It was shown very clearly that his dislike of his brothers was not the offspring of delusion or of any morbid feeling. It was no sudden fancy, but a deliberately matured conviction that they had not treated him well, and that, such were their

habits, much money would do them no good. His story of his brothers, on one occasion, threatening to throw him out of the window, if not literally and entirely true, had a broad foundation in fact. One of the brothers, in describing the scene referred to, testified that they did not exactly threaten to throw him out of the window, but only said, that if he were not his brother, he would throw him out of the window. The bequests to the Methodist churches presented indications, the contestants declared, of mental unsoundness, because they are so large as to be greatly, even ludicrously disproportionate to those churches' several necessities. Not only was \$25,000 a sum that could scarcely be used up in finishing the church in Plummer, as directed in the will, as the original cost of it was only about \$3,000, and all needed repairs could be made for \$300 or \$400, but the town itself was then in a decaying condition, having now only some fifty or sixty houses. Pit Hole is but little larger, and as one witness testified, \$10,000 could scarcely be put upon it, and make a church of it, and that place also had gone down. It appeared too that \$5,000 would have been sufficient to finish and repair the church in Battle Creek. On the other hand it was testified that the testator was strong in the faith that those places would revive, and if in this particular, he was more sanguine than the circumstances warranted, the fact should be attributed to a natural partiality for places connected in his mind with agreeable associations, rather than to any form of mental disease. And this feeling, no doubt, rendered him careless as to the exact amount that might be immediately required, knowing that any surplus would be usefully disposed of. In this connection, it may be stated that this kind of disposition of his property was in accordance with views he had previously expressed. Bishop Simpson testi-

fied, that in conversation with him some years before his death, he, the Bishop, suggested that the testator would do much good with his money by endowing some literary institution. Shortly after he wrote a letter to the Bishop, in which he said he preferred to give his money to Sunday schools and poor churches.

I have intimated that during the testator's last illness, there was nothing in his conduct or conversation indicative of mental disorder. It appears, however, that about the 25th of May, five days after the will was made, he asked Dr. Aickin, "whether he, the testator, could not get a ship to charter to take him and deponent, and the nurse to America." This was alluded to by counsel as indicative of a disjointed mind, but to me it conveys no such meaning. If he thought his case not quite so desperate as others did, it was a kind of self-deception not uncommon, by any means, with the subjects of pulmonary disease, and to a man of his means the expense of such a step could not have been a piece of reckless extravagance.* To wish to see his mother once more, and breathe his last at home, scarcely looks like consummate folly.

The mental disability supposed to have been produced by the pulmonary disease, was spoken of in very general terms—rather as a constructive than an actual disability. The experts who staked their reputation upon its existence were not even asked to indicate what faculty of the mind was at fault, or what disposition of the will, or incident in the making of it, "sounded to

* The friends of a patient once under my care, having concluded to take him home, and wishing to avoid the exposure and other inconveniences incident to a passage by the regular steamer, hired one expressly and solely for the purpose, though not so able to afford the expense as Mr. Duncan was.

folly." Had there been any coma or delirium—the inevitable results of undecarbonized blood—there would have been abundant reasons for asking these questions. And thus we have the extraordinary case of medical experts, called to testify as to the competency of a testator, telling the court and jury what, in accordance with their pathological theories, ought to have been his mental condition, not what it really was, as shown by the circumstances of the transaction. One might search long before finding a parallel to a case like this. In fact, the counsel, in order to sustain their position, were obliged to rest upon another theory totally independent of the characteristic effects of vitiated blood.

Some stress was laid on the opacity of the arachnoid, as if that ought to have given rise to some mental disturbance, and I regret to say that the idea received some countenance from the contestants' experts. It may be dismissed with a single remark. Every one who has made many autopsies will tell us that such opacities are witnessed in a large proportion of subjects where the mind has been clear and sound to the last. In this case it signified nothing whatever, respecting the mental condition, as was stated by the experts on the other side.

What was relied upon more than anything else for the purpose of breaking this will, was the charge of undue influence. To appreciate this charge properly, it should be understood that influence does not necessarily vitiate a will. In a large proportion of wills, the dispositions are more or less the result of influence, and if this were oftener so, there would, undoubtedly, be fewer instances in the world of unjust or foolish wills. When a man comes to distribute his estate among those who seem to have claims upon his bounty, he naturally seeks the advice of others, and is governed, in some de-

gree, by their suggestions. Such an influence works no injury to the instrument, in the view of law or of common sense. On the other hand, in the case of persons whose minds have become weakened by old age, by sickness, or by congenital infirmity, the law looks with great jealousy on the exercise of any influence, and especially by those who are benefited by it. This it is, which may become what is technically called *undue influence*. The law supposes that in the abnormal conditions here mentioned, the mind having lost, in some degree, its proper stability and clearness of perception, readily yields to the suggestions of others, and thus makes testamentary dispositions very different from such as it would have made in its ordinary state of health. The charge of such influence must have for its foundation satisfactory evidence of mental weakness exhibited in other matters than those directly connected with the testamentary act. A *prima facie* case must be shown, before the alleged influence can be pronounced to be undue. In regard to this distinction, juries are apt to be misled, willingly or otherwise; and in the present case, probably, the result of the trial was the offspring of that sort of mistake. That influence was used, nobody denied, but the evidence respecting the mental manifestations of the testator during the whole month of May, furnishes no proof of weakness or decrepitude, of freaks or fancies, and consequently fails to afford the requisite foundation for a charge of undue influence. Even if such a foundation had actually existed, the charge would fail, because the testamentary dispositions, for the most part certainly, obviously originated in the independent exercise of the testator's own will. That such was the fact in regard to the bequests to his brothers, and to most of the legatees, can scarcely be doubted, because they indicate

circumstances not likely to be known to those around him. The influence was all in favor of the brothers, not against them. It effected an addition of \$5,000 to the legacy of one, and \$10,000 to the little blind child of another. At the suggestion of others, he revoked certain bequests, and substituted for them direct gifts, for reasons that would have amply justified the change had he been unequivocally sane.

The idea of undue influence is simply preposterous when we consider who the persons were who had access to him, and the only motives by which they could possibly have been governed. If the Lindsays or Dr. Aickin had conceived any mercenary designs, their policy would have been, after securing their own portions, to propitiate the heirs-at-law, by turning the rest of it into their hands. The Rev. Robinson Scott, who visited him in the early part of his illness, might possibly have advised him to make large bequests to Bishop Simpson and Mr. Long, as being members, with himself, of the Methodist Church, though he says emphatically that he did not; but had he done it, he could not have better served his purpose than by discouraging every other bequest than those made to the heirs-at-law. Had this gentleman been disposed to exercise any influence, it would have been, most likely, to obtain an endowment for the college with which he is connected—an object towards which the testator had seemed to be favorably inclined at a former period. How Dr. Rea used his influence, we have already seen, and it is scarcely possible that he could have been led to use it in any other way. This disposes of the charge of undue influence, it being as groundless as that of coma and of delirium, and thus nothing remains to impair the validity of Mr. Duncan's will. In connection with the notion, so steadily held up by the contestants, that sinis-

ter influence was exercised to turn this estate into the hands of Methodist people, the reader must understand that of the few persons above mentioned, as having access to the testator, one only, Mr. Scott, belonged to that persuasion.*

Here ends the ungracious task of exposing some features of a trial little calculated to shed much lustre on the Medical Jurisprudence of our country,—a task undertaken only that its lessons might not be lost on those who, by virtue of their profession, may be called to assist as medical experts in the administration of the law. Let it teach them that in that capacity they are bound by more than the Hippocratic oath, to serve as faithful ministers of science, casting aside every ignoble prepossession born of the time or the place, and laying upon her altar the offering of an intelligent investigation and an honest purpose.

* The reader may be interested in knowing that the jury disagreed, standing ten against the will, and two for it. A compromise was then effected.

ARTIFICIAL ALIMENTATION.

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When we consider the large number of patients who, habitually, or occasionally, in one or other of the stages of insanity, refuse food, the aggravation of the disease, the obstacles created to the administration of medicine and other means of restoration, and the danger to life and strength created by such a course, much wonder is excited by the small attention which has been directed to the subject of abstinence and to the measures necessitated by so grave a complication, especially in this country. The allusions to fasting, as a cause or symptom of alienation, in the earlier writers, are so scanty, and in such a spirit as to suggest suspicion that it must have been of rare occurrence, or that its importance was under estimated. Even modern authorities deal less fully and frequently with what constitutes an almost insurmountable barrier to treatment and amelioration than what is demanded, and than what the statistical tables, from time to time published, bearing upon this feature, would appear imperiously to call for. If nutritious and abundant supplies of food constitute, according to prevalent opinions, the most trustworthy remedy, or at all events, the most powerful auxiliary in the management of the insane, it must be obvious that the diminution or withdrawal of suitable aliment is calculated, not merely to retard and to arrest recovery, but to multiply the causes of the condition upon which the mental phenomena depend. Many years ago it was calculated that one-ninth of the insane

refused food, and that in one-thirtieth of these, the refusal could not be overcome. This proportion is supposed to obtain in continental countries, where the prevailing religious creed and customs may suggest a morbid tendency to fast, to the deluded imagination. Whether we accept this estimate or reject it as an exaggeration, there exist strong grounds for believing that the cases of melancholia, combined with abstinence, are now more numerous than formerly, and that even the tendency to refuse food, whether associated with despair or delusion, fury or abstraction, is more generally met with. Dr. Hood, Bethlem, states that he had fed many hundred patients without accident, and Dr. Williams quotes the registers of the Northampton Asylum, as showing, that during two years, fifty per cent. of the patients admitted, refused food, and that ten per cent. required to be fed. In an asylum in England, containing fourteen hundred pauper patients, it was calculated, October, 1874, that there was an average of one case of forcible feeding per day, while in an asylum in Scotland, containing three hundred and twenty-nine pauper patients, there were at the same date, two persons fed, and in another asylum, in the same country, containing one hundred and fifty-eight inmates, belonging to the affluent classes, two were likewise fed. Every annual report issued in America or in England, records the disastrous effects of abstinence, which has preceded the admission of patients to asylums, or which, added to other difficulties, has rendered the exertions of the physicians either altogether nugatory, or but partially successful. Two cases of recent occurrence have deeply impressed us. In one, an insane lady, in affluent circumstances, obstinately refused all nourishment, and, either from objections on the part of relatives, or from timidity, or reluctance on the part of the medical at-

tendant to have recourse to force, or from other circumstances unknown to us, was allowed to die of inanition. In another, a paralytic dement, emaciated, exhausted, and who had taken no food for fourteen days, was placed in an asylum. He swallowed two or three spoonfuls of porridge after admission, but, on the subsequent morning, a meal was administered by means of the stomach pump, and by an expert. The man had been placed in a reclining position, and no difficulty was experienced in the introduction of the tube, but while it was withdrawn, he suddenly expired. The autopsy showed that a portion of the food had found its way into the left lung. Our object is not to inquire as to the manner in which this accident occurred, nor as to the actual cause of death, but solely to insist upon the proposition, that, had not the paralytic been exhausted, wasted, and sinking from hunger, he would not have died.

Great diversity of opinion has prevailed, and still prevails among physiologists, as well as ordinary observers, as to the length of time an individual may survive, may live upon himself without support of any kind, and, accordingly, as to how long it may be prudent or permissible to postpone interference. A century ago, when patients in seclusion were allowed to die from the consequence of abstinence, the process of dissolution, even when perfect rest was observed, was certainly very slow, and even in more recent times, when the mechanical resources for overcoming the rejection of food were rude, and the application somewhat dangerous, and, while the use of the stomach pump was regarded with apprehension—and we have known two instances during the last twenty years where patients perished in consequence of this groundless dread—life has been protracted much beyond the limits observed when

starvation was involuntary or experimental. That this lack of courage, or of conscience, prevails elsewhere, may be gathered from the words of Luther Bell "the horrible and discreditable examples furnished every month in the year, in the public prints, of individuals being permitted to deprive themselves of life by starvation, no artificial aids being employed." We would dismiss all the apocryphal evidence as to fasting girls, but we would accept with respect, and treat as credible, certain examples where abstinence is resorted to as a duty or a penance, where there is the support of principle or enthusiasm, or mere delusion, and, where the constitution long resists the trial to which it is subjected, and appears in many instances to become reconciled to the smallest and most insufficient quantity of nourishment. This tolerance of fasting has been most conspicuous among religious ascetics. The act has been associated with ideas of self-denial, mortification, and purification from the grosser parts and passions. Examples are on record of pious persons whose motives are unquestioned and unquestionable, such as St. Simeon Stylites, who took no food for forty days in each succeeding year for forty years; and, in more modern times D. Claude Leante fasted during the whole of Lent, for eleven years. It should be noted here that the intensity of the emotions or delusions by which the insane are actuated under such circumstances, may be as strong and as sincere as the convictions of the enthusiast, and may impart a similar degree of support and invulnerability. It has been generally supposed that death must ensue after seven or ten days starvation; but, it appears, that one man was supported on orange-water for sixty days, that the damp from the walls of a cavern sufficed several workmen, buried under Dover Cliff, for fourteen days; and Sir John

Forbes* recounts a case of a young person whose life was sustained by one draught of water and one spoonful of wine for twenty-one days. Trustworthy narratives exist as to seventy-five sailors exposed without food in the rigging of a wrecked vessel, who survived five days, while fourteen of their number survived twenty-three days, and, of another crew of eight sailors, who survived eight days. These persons, however, if deprived of the factitious strength accompanying mental disturbance, were robust and healthy, or, at all events, were not exposed to inroads of diseases of the nervous system, nor to the depressing influences by which these are generally accompanied. Esquirol held that lunatics may subsist from thirteen to twenty-one days without aliment, and the case of a melancholic and determined suicide is recorded, who swallowed nothing but water for seven weeks and three days when death ensued.† *Pellevoisin* has observed that patients who refuse all nourishment die in six days, and that in those who take liquid, life is preserved for sixty days. Some approximative scientific information has been obtained, not certainly of the viability of the human frame, but of the durability of the human mind under the test of abstinence, by Dr. Houghton, quoted by Dr. Thomson Dickson,‡ who refers to an address read before the British Medical Association, at Oxford, by him, in which experiments are described "in which the waste of the tissues was calculated upon confinement in a closed room while fasting, but, as stated by Professor Houghton, it was impossible to complete the experiments on the human subject, as the mind had almost given way under the prolonged abstinence."

*British and Foreign Review No. X p. 370.

†American Journal of Medical Science August 1830.

‡Medicine in Relation to Mind, by Dr. Thomson Dickson, London 1874 p. 94.

History points to the close connection of derangement and delirious fever as consequences or concomitants of want; all the signal famines which have desolated different countries in Europe, and, even where there is a minimization, short of absolute want, of the means of subsistence, similar results have been observed.* It is on record at St. Luke's Hospital that at a time before the county asylums were generally established throughout the country, whenever the ribbon weavers at Coventry, were thrown out of work, there were always numerous applications for admission for patients with acute mania, in a starving condition, from that district.† The condition of such victims to misfortune must have been closely assimilated to that in which lunatics display repugnance to food. First, the shadow, the dread of poverty would cross the path, it would be followed by harrowing anxiety as to the fate and fortunes of those dependent on the sufferer; then there would be insufficient nourishment, anaemia, melancholy, loss of courage and control. It must not be conceived, however, that the origin of abstinence is to be found only, either in the fear, or in the presence of impending evil. The symptom may be encountered in every form and phase and stage of aberration, where there is no design to destroy life, and where such a course is adopted for the very purpose of preserving it. The motives, incentives, provocatives or inexplicable circumstances under which patients decline to take food are multifarious, and are presented to us under such complex aspects as to perplex and to defeat all foresight and circumspection. Individuals will partake of certain meals, or certain

*See Pinel's experience as to the aggravation of excitement and other symptoms on the reduction of the diet of the inmates of Bicêtre "Treatise on Insanity."

† *Ibid.* W. S

qualities of food only, at particular times, or by stealing; will take portions of each meal but never a full meal; will take small portions of whatever is presented to themselves or to others; will prefer fluids to solids, or vice versa; the servants allowance, but not their own; that formerly, but not presently offered, and so on. The types and manifestations of mental disease are known to correspond with the progress of civilization, the prevailing opinions, customs, even fashions of the times, and it is conjectured that circumstances, even more trivial may influence the appetite of the insane, or their will to gratify it. The patient may have conceived at any time that he is the victim of a gang of poisoners; that his food is drugged; that the richest and the rarest dishes are offered, solely the better to conceal the deleterious ingredient, the more surely to allay suspicion, or to tempt the appetite; the palate detects opium, arsenic, but not until very recently, has chloroform been added to the number of destructive agents; the stomach is pained, perforated by caustics; the intestines are agglutinated by powerful astringents surreptitiously introduced; but, not until of late, has mesmerism been recognized as the means by which the passages have been hermetically sealed, or spiritual ventriloquism accused of being the source of the prohibition to eat. An analysis of the conduct and convictions of the patients committed to my care during one year, in relation to eating, &c., may prove instructive. Twenty-four exhibited no peculiarity of appetite, or in the mode of taking food, although several labored under diseases of the stomach; four displayed a craving for medicine rather than food; five preferred stimulants, and had subsisted on them; in five the appetite was capricious, the digestion difficult, and the attention occupied in dwelling upon the consequent annoyances,

or in discovering expedients, dishes, and devices, which promised to afford relief. In eleven the desire for food was intense, and insatiable; in one of these the voracity depended upon diabetes; five of the number were epileptics, one was idiotic, classes in which the tendencies are animal, uncontrolled, omnipotent. In one, there existed ulcerations of the intestines; one ate unconscious of his excesses; another exceeded because she was a queen; a third because impelled by hunger, but convinced that serpents banqueted upon him. Five patients partially fatuous, or entirely pre-occupied, swallowed whatever was presented to them, regardless of the quantity or quality of the viands, the frequency of their meals, or the rapidity of their exhibition. Three were anaemic, or partook sparingly of nourishment; in one the appetite was morbidly defective. Thirty-seven individuals abstained from food altogether for hours, days, months, and, if to these be added fourteen, previously resident, fifty-one in totality have during the year displayed this symptom, and will be comprehended in the observations which follow. Of this number twenty-nine were females, twenty-two were males. In four the refusal, which rather extended to certain descriptions of food than to all, but was sometimes extended to all, proceeded from the nausea or extinction of appetite, which attends the latter stages of abdominal diseases. In five the abrogation of hunger was not associated with acute or obvious malady, but depended upon some new combinations of mental powers, suspension of that consciousness of external impressions which intimates our wants, or upon the state of that part of the brain connected with the expression of the lower instincts. In three the desire returned, in two it never was restored. Nine individuals, profoundly agitated by mania, in the expenditure of muscular force in the man-

ifestation of rage, and violence, and extravagance, became insensible to all impressions, but that of the tempest which raged within, and abstained from nourishment for various periods, forgetting its use, attractions, existence, living rather upon hoarded strength than upon its increment. Six patients not affected with fatuity and three of whom have recovered, without losing the inclination to eat have been incapable of obeying the impulse. The sentiment of vague, indiscriminating terror induced abstinence in three, the specific fear of want in two. Both of these were men advanced in years; in both the apprehension was justifiable, but, when the grounds of alarm were removed, the feeling remained. One barricaded himself in his cottage against his benefactors, the other buried the food which charity supplied, and both starved.

Pride leads to the same result. Two humble females reject all support, because what was prepared was neither savory nor suited to their dignity. In one the passion supported the resolution for a few days, in the other it was indomitable. A third subjected herself repeatedly to artificial feeding, in order to obtain a richer and more palatable diet than that to which her position entitled her, shrewdly observing that bribes as well as menaces were employed to uproot delusions and perversities. Offended delicacy, or offended vanity, led two females to exhibit their indignation by abstinence. In many such cases the depth and violence of the emotion may destroy the appetite, but in general, the act is merely the language of anger or suspicion. In four, religious feeling appears to have supported and suggested abstinence. In one of these the course adopted was the result of a recollection of what the healthy mind recognized as duty; in one it was boasted of as a sign of spiritual illumination; in two it was the

dictate of a dream or a delusion. Poison was the pretext in two cases, and the most desperate resistance was offered to the exhibition of the arsenical preparations which were, it was asserted in one case, clandestinely, and in the other, openly, mingled with the food. In one of these individuals, even after the restoration of reason, there remained the conviction that some corrosive substance had been administered to him in this manner. The impression preserved by memory may have been communicated by the medicine which was unavoidably given.

Such a case conveys a two-fold lesson, that an erroneous conviction arrived at during insanity, may affect the sane mind, and that evil attends recourse to food as a vehicle for medicine, as suggesting or confirming the delusion which it may be intended to remove. One lady, fearful of poison and death, for years declined to be fed with the remains of her fellow creatures, who were slaughtered in a gigantic machine, kept in incessant activity for the purpose. Three patients abstained from all kinds of food from an imaginary inability to swallow. In all, there existed the firm and inflexible belief that the throat was closed, that the passage had contracted so much that even liquids could not reach the stomach, that the obliteration was the result of cancer, or as a special manifestation of divine displeasure. These cases might all be classed under religious melancholy, in which there is often to be met an intensity of purpose which healthy faith and fortitude fail to emulate. The introduction of a tube into the œsophagus, the daily disappearance of large quantities of food by its instrumentality, and the absence of all indications of dissolution failed to dispel the delusion, and although all the patients are alive and now eat and drink as their companions, they per-

tinaciously adhere to their hypothesis. Incessant loquacity interfered for days with the pressure of want, in one case where the patient seemed irresistibly impelled to declaim, dogmatize and vituperate, where relief was obtained to the internal rapidity and redundancy of thought, in the frantic eloquence resorted to, and all impulses and instincts were suspended by the fervor of the orator. In one patient only, could be traced the deliberate design of self-destruction. Unswayed by any other impulse than that of inveterate and eccentric habit, one septuagenarian would not, and could not eat unless allowed to perambulate the room while she took her meals, a practice which example has eradicated.

Perhaps a better mode of showing the multiform and contradictory motives, impulses and circumstances under which this perversity is exhibited, may be to present a *vidimus* of a hundred cases of abstinence which have occurred in my own experience.

	MALES.	FEMALES.	TOTAL.
Access in side required to be opened.....		1	1
Abstraction,.....	3		3
Agitation of body,.....		1	1
Affected with scrofula, and must not be fed,	1		1
Belief that fever exists,.....		1	1
Body changed,.....		2	2
Body translated into another world at Eg- linton tournament,.....	1		1
Catalepsy,.....		1	1
Can not pray if food be taken,.....		1	1
Closure of throat,.....		4	4
Dead,.....		1	1
Design to obtain better diet,.....		1	1
Design to obtain larger supply of tobacco,.....	1		1
Desire to have food in a certain mode,.....		1	1
Disgrace, shame,.....	1		1
Dislike to attendant,.....	1		1
Divine command,.....	1		1
Death of animals in stomach, that formerly required food,.....		1	1
Fear,.....	3	2	5
Fatigue,.....	1		1
Fear of mercury,.....		1	1
Fear of want,.....	3		3
Food containing human flesh, excrement, &c.,		2	2
Food containing poison,	3	2	5

	MALES.	FEMALES.	TOTAL.
Food to be saved and given to poor,.....	1		1
Indignation,.....		1	1
Impending death,.....		1	1
Internal illumination,.....	1		1
Intolerance of external impressions,.....	1	1	2
Indigestion,	2		2
Independence of matter,.....		1	1
Inattention to external impressions,.....	3		3
Inflammation of ear,.....		1	1
Loss of entity and identity,.....	1		1
Loss of intestines and stomach,.....	1		1
Logodiarrohoea,.....	1		1
Made of glass,.....		1	1
Moroseness,.....	1		1
Maniacal pre-occupation,.....	4	2	6
Mania—puerperal,.....		1	1
Manifestation of contempt,.....	1		1
Necessary to health,.....	1		1
Offended pride,.....		4	4
Opposition to will of others,.....		2	2
Pain in chest,.....	1		1
Plot detected by position of plates,.....	1		1
Power to subsist without food,.....	1		1
Preparation for death,.....	1		1
Pride,.....	1	2	3
Prohibition to walk while eating,.....		1	1
Religious fast,.....	1	2	3
Repugnance from disease,.....	2	1	3
Sinfulness of eating,.....		1	1
Spirits need no food,.....		1	1
Stomach changed into that of herbivorous animal,.....	1		1
Suicide, mode of,.....	3	2	5
Tormented by "them",.....	1		1
Vow not to use right hand,.....		1	1
Will be sent to workhouse,.....		1	1

Dr. Luther Bell,* in a valuable paper upon this subject, has attempted to classify such causes and accidents under three categories. First, where there is supposed to be a divine command or inspiration. Second, where there are delusions of the external senses or cœnesthesia. Third, where there is actual disease of the abdominal organs. This attempt, however, seems to sacrifice exhaustiveness to epitomization. Dr. Tuke, in an elaborate paper, (*Journal of Mental Science*, Vol. IV. p. 37,) gives the following five categories of the causes from which the refusal of food may arise; 1, simple dyspepsia; 2, delusions; 3, suicidal intentions; 4, stu-

* American Journal of Insanity, Vol. VI. October 1849, p. 224.

pidity; 5, special organic lesions of the brain, pneumogastric nerve or other internal organ. It is obvious, that even in addition to the long catalogue of pretexts, above given, abstinence may be traced, independently of any perversion of the will to the real abolition of the instinct of hunger, connected with cerebral disease, or to the nausea, uneasiness and painful feelings, arising from difficult or imperfect digestion, even where no structural alteration in the stomach or elsewhere can be detected. It is prudent, before any more heroic measures are adopted, to determine whether the disgust and repugnance exhibited may not originate; 1, in obstinate constipation, when purgatives; 2, in crudities in the alimentary canal, when emetics or antacids; 3, in irritability, when oxide of bismuth or opium.; 4, in inflammation, when leeching, blisters, ice, &c., may be found sufficient to remove the obstacle, and to pave the way for subsequent treatment. But when this course has been pursued unavailingly, and when it has become palpable that a morbid perversity or delusion has to be contended with, and still, before such mechanical interference is resorted to, upon which the life of the patient may depend, various expedients may be tried in order to tempt, persuade, &c., to yield to the wishes of those around. It is affirmed that Sir W. Ellis believed that no external aid was required, and that entreating and cajoling were always triumphant. His work* is before me, but I have not found the passage countenancing this allegation; yet so omnipotent did he regard the law of love and kindness to be, and so powerful were these agents in his hands, that such belief may be cor-

* Treatise on the Nature, Symptoms, Causes and Treatment of Insanity.
By Sir W. C. Ellis, London, 1838.

rectly attributed to him. It is, however, certain that failure has attended the prayers and persuasions of many of his most judicious collaborateurs. During the first four years of my management of an asylum, no case of abstinence occurred in which patience, prudence, remonstrance, and one or other of the means about to be enumerated did not prove successful. In after years, I earned the bitter knowledge that this symptom is frequent, and often occurs epidemically. There is a discouraging contrast to Ellis' conviction, in the issue of the *Annales Medico-Psychologiques*, for May, 1874, where there is found a report of a discussion in the Psychological Society, in which Dr. Dagron, of the model asylum, Ville Evrard, and Dr. Motel, advocate recourse to electricity as preferable to the shower bath, as a means of intimidation in exorcising the spirit of abstinence.

Verga, while glorying in the experience at Senavra, where for twelve years no patient had been fed, condemns all artificial sustenance not only as unnecessary, but pernicious, except in suicidal wounds and complete stupidity, and proposes that the instruments should be consigned to a museum of antiquity, perhaps beside the relics of the inquisition.*

MORAL AND PHYSICAL MEANS ADOPTED TO OVERCOME ABSTINENCE.

1. Animal Enemata.
2. Baths.
3. Bribes of dress, ornaments, indulgences.
4. Command of Superiors, Sheriff, Queen.
5. Contemptuous disregard of refusal.
6. Entreaties, persuasions, reiterated.
7. Eggs, to remove fear of poison.

*Lunier. Annal. Med. Psy. Vol. I, 2d. Series.

8. Fruits, oranges, nuts, apples; to remove fear of poison.
9. Fruit, and animal lozenges.
10. Feeding one patient in presence of another.
11. Food allowed to be taken by stealth.
 - Food allowed to be taken during night.
 - Food allowed to be taken in bed.
 - Food allowed to be taken in certain postures.
12. Food offered by friends.
 - Food offered by strangers.
 - Food offered by different officers or servants.
 - Food offered in different places.
 - Food offered by females to males.
 - Food offered by males to females.
 - Food offered by patients.
13. Food of one patient given to another.
14. Food tasted and taken with abstainer.
15. Food to counteract poison.
16. Food as punishment.
17. Inunction.
18. Milk from cows.
19. Oil cod-liver, cocoa-nut as remedy.
20. Patients permitted to purchase food at unsuspected shops. (Luther Bell.)
21. Shower bath.
22. Threats of all kinds.
23. Water from well.
24. Wine, ale, as vehicle for medicine.*

But should such and similar ingenious devices fail, as in the majority of instances they certainly do fail, and it has become necessary, in order to preserve life, to depend upon the coercive administration of aliment, a

*This table and many of the remarks in this essay appeared in the Annual Report of the Crichton Institution for 1854.

grave and perplexing consideration arises as to the time at which force should be had recourse to.* Guislain who has devoted nearly a lecture to this and collateral topics does not decide upon any precise period for interference, but urges promptitude and condemns temporizing as hurtful in itself and calculated to confirm the obstinacy "determination opiniétre" of the patient. Griesinger† in like manner affords no data as to the period at which artificial feeding became, in his opinion, justifiable, but states that having endeavored to overcome the resolution of the patient, not by reasoning, but by presenting to him choice viands, of which other persons were partaking, and after final exhortation, no longer delay should be permitted.

Luther Bell‡ expresses himself as follows: In those cases of *mere will*, where the patient resolutely refuses, with the calculation that he will compel his release by endangering his life, when the health and deposition of fat are average, perhaps it would be a safe general rule to allow three days, that is, seventy-two hours, to elapse before any force need be used, "but his opinion seems to have been somewhat influenced by the presence or absence of the brown crust upon the tongue, the sordes on the teeth, the chapped lips, and the blush on the mucuous membrane, observed after protracted abstinence, as well as in diseases of the digestive organs; but, especially of the fetid breath, which may be regarded as pathognomonic of the former condition. Dr. Harrington Tuke limits the delay to from two to four days. Manley, Bucknill and almost all other practical

**Lecons Orales sur les Phrenopathies* Par J. Guislain, Paris, 1852. Vol. III, p. 236.

†*Traite des maladies Mentales Pathologique and Therapeutiques.* Par W. Griesinger, Dournic's Translation, Paris, 1865. p. 568.

‡ *American Journal of Insanity* Vol. VI, p. 227 January 1849.

men, advise that feeding should be resorted to early. From a recent correspondence with Dr. Gray, the distinguished editor of the AMERICAN JOURNAL OF INSANITY, it would appear that he prescribes feeding after the refusal of one meal in the weak, and three meals in robust patients.

In my own practice I never awaited the appearance of these critical signs, but fed artificially, *cet par*, after the expiration of forty-eight hours, in other words, when six meals had been positively or pertinaciously refused. This calculation was not arbitrary, but the result of my experience; first, that after this period, whether abstinence were voluntary or involuntary, emaciation and debility increased with great rapidity; second, that digestion and assimilation were tardily and imperfectly performed; third, that mental feebleness and hebetude increased to a degree of temporary dementia; fourth, that in proportion to this enfeeblement the moral impressions generally produced by the preparations for, and the process of feeding, were in great measure lost or impaired. Where great debility existed, this step was taken even earlier. Nor was I swayed from my purposes by those cunning concessions and compromises which the insane essay when they take a portion of a meal, pick, dally, dawdle over what is presented, where they appear to masticate, but do not swallow, where they deceive, distribute their food to others, to pets, destroy it, or conceal it, even having recourse to indecent practices in order to defeat the arrangements of their guardians. These subterfuges are numberless, and, if successful, may reduce the quantity taken so low that life, and strength, and intelligence may all be imperceptibly ebbing during the delay thus secured, circumstances under which that bugbear of foreign observers, gangrene of the lungs, might be expected to appear.

Guislain avers that of thirteen cases requiring interference, ten died of gangrene of the lungs. I have had patients who could, by rumination, partly disgorge the contents of the stomach, and one gentleman was transferred to my care, pale, skeletal, and exhausted, from a well conducted home, where his anxious friends saw him take abundant meals, but at last discovered that the inefficacy of these was explained by the patient retiring to the water-closet, tickling the fauces, and by this means rejecting all that he had swallowed.

Having determined that compulsory alimentation is unavoidable, the next step is to select the best, safest and most irresistible means by which the purpose may be accomplished. We may be somewhat guided in our choice by an historical retrospect of the various mechanical contrivances which have been employed, and which have obtained the sanction of practical physicians. Almost the first allusions to this practice are to be found among the sad and revolting revelations of the Parliamentary Committee of 1816.* Strength of arm appears then to have been the remedy for all such difficulties, and the recusant was bound down on a bed, the teeth forced asunder by a key, and the dreaded substance pushed or poured down the throat. Occasionally teeth were broken or pulled from their sockets, and we hear of the handle of a spoon—this was the instrument generally selected for the operation—being forced through the palate during the contest. But these violent measures were trivial compared with what sometimes ensued. To facilitate the descent of the food, the head was unavoidably bent backwards, and placed in so unnatural and dangerous a position, that any sudden or powerful movement on the part of

* First report of Minutes of Evidence from Committee on Mad-houses, 1816, p. 2 and 80.

the patient rendered dislocation of the vertebræ imminent. When the throat was strongly grasped in this attempt, suffocation may have taken place, but the instantaneous death of some of the patients, whose history is recorded, would lead to the belief that pressure on the spinal marrow had been the cause. What adds to these painful pictures, is that this rash violence was inflicted, apparently, without reference to the duration of abstinence, and by individuals who were altogether ignorant of the anatomy and physiology of the parts which they manipulated. A female in a private asylum, expressed her unwillingness to eat, she was immediately forced, and is said to have died under the hands of the keeper. Had the unfortunate George III been placed under such summary discipline as this, he would have undergone the indignity of forcible feeding, as he is said to have refused food from fear of poison, as well as of that disregard of the liberty of the subject involved in the application of a strait waistcoat.* Again the following event is said to have taken place, and will exemplify both the rashness and indifference displayed by all concerned in such proceedings. A gentleman refused his food; the keeper forces him to take it; the patient calls for assistance in the piteous words, "For God's sake Mr. —— come and help me or I shall be killed by this man." No entreaties, either on the part of the sufferer or the other servants, could induce Mr. —— who was seated in an adjoining room and within hearing of the scuffle, to interfere. All becomes suddenly still; the keeper quietly reports to Mr. —— that the gentleman went off in a fit during the act of forcing, and no further notice is taken of the matter.†

* Ray's Contributions to Mental Pathology. Boston, 1873, p. 472.

† What Asylums were, are and ought to be. Edinburgh, 1837, p. 106

The first instrument specially intended to meet these dangers and difficulties, was, what was called in nursery language, the medicine or grandmother's spoon, claimed as the invention of Dr. Haslam, and which, whether constructed of metal or of wood, may be described as consisting of a spoon with an opening from the end of the handle to the point of the bowl, through which the food was poured, after the tongue was kept down by the bowl. While this expedient was justly considered as preferable to the process called spouting, and was looked upon with some favor in America, as late as 1850, the impossibility of introducing the rather voluminous bowl between the clenched teeth, and in opposition to the resistance of the patient, and likewise in consequence of the small quantity of liquid which could thus be administered, have led to its discontinuance. The common spoon appears still to have its advocates, among whom Dr. Williams enumerates Manley, Wing, Huxley,* but the following passage taken from Dr. Thomson Dickson's Posthumous Work is worthy of serious consideration. "But there is one great objection to this plan, it often involves a great struggle with the patient, and this is attended with danger. On one occasion I witnessed a patient die at the end of such a struggle," (p. 227.) Subsequently, and for ten years from 1832 to 1842, various modifications of funnel-shaped apparatus were in repute. At first, these were merely funnels of considerable size, covered by a movable lid, and to which was adapted a short flattened tube to be placed between the teeth, and through which the fluid was expected to flow into the pharynx, when poured into the vessel and secured there by the lid. Between the tube and the vase was an oblong shield intended to protect the lips. Dr. Manley, after

* *Journal of Mental Science*, October 1864.

giving five fatal cases in which aliment was administered by the spoon, and life supported for various periods, intimates his decided preference of the funnel. And so recently as March, 1869,* Dr. Mosey proposes as a novel mode of application of the funnel, the narrow extremity of which was to be introduced into one nostril, through which the food was poured into the posterior pharynx. A further and ingenious development was supposed to have been effected when the vase was placed at right angles to three tubes, connected with its interior, through one of which, placed between the two others, the food was expected to enter the mouth, accelerated by the forced breathing to which almost every patient has recourse under such circumstances, the expired air rushing up the lateral tubes which opened into the receptacle closed by a lid above the level of its fluid contents, thus forcing them downwards and forwards. This machine did not realize the design of its inventor, and although contributing to save many a life, this did not depend upon the cunning arrangement of the tubes, but upon the inability of the patient to expel the large and rapidly descending current of liquid after the separation of the teeth had been accomplished. This separation was attended, even in dexterous and delicate hands, with such frequent injury to the lips, gums, teeth, &c., that efforts were made to evade the resistance by using a vessel to which a long narrow tin pipe, curved laterally at the extremity, was attached, which was guided along the inside of the cheek, and passed between the last molar tooth, and the ascending process of the lower jaw, when by slightly elevating the vessel, the contents flowed into the posterior part of the mouth. Nothing but liquids could be exhibited in this way. Upon a

* The *Lancet*, March 20 and 27, 1869.

similar principle, a dish with a long pipe curved downwards, or even a common teapot was used to pour jelly, &c., through the posterior nares into the throat. Dumesnil seems still to trust to the emptying of a feeding bottle through the nares, and recounts that a patient was maintained at Dijon, for three months by this method. The clumsy contrivance of a teapot pouring the food into the nostril may have suggested the invention of the naso-oesophageal tube, which, although it has undergone many modifications, may be described as a long, flexible tube, sometimes rendered partially inflexible for the purpose of guidance, by means of a wire or slip of whalebone, which was passed through the nostrils into the oesophagus and stomach, then connected with a funnel through which various kinds of aliment could be poured. It would appear that Falret, the elder, was accustomed to pour fluid food through a female catheter into the nares and stomach; but whether this expedient was in anticipation or in imitation of the naso-oesophageal tube, we have not ascertained. The apparatus had many advantages; it enabled the operator to escape all the obstacles offered by lips, spasmodically closed jaws, raising of the tongue, regurgitation, &c., but it was open to several objections. First, great irritation is occasionally the result of passing any pipe through the nostrils. (Bucknill.) Second, that from the narrowness of the tube and its orifices, tenuous fluids could alone be given. Third, from its great pliability it was apt to pass forwards instead of downwards, and curl into folds in the mouth, and fourth, it might pass into the glottis without much irritation, this direction for a time escaping the notice of the operator. The danger was by no means fanciful, a large quantity of soup having been thus introduced by an expert into the bronchi of a patient, which, of

course, led to death. There might be read in the pages of the *Annales Medico-Psychologiques*, many narratives and warnings from Esquirol, Leuret, Trelat and various others as to grievous disasters, such as the infliction of wounds in the soft palate, haemorrhage, entrance of the glottis, pumping of fluid into the air passages, perforation of the oesophagus, occurring during the introduction of both the naso-oesophageal and the oesophageal tube. Of such accidents I have no personal knowledge, and am assured that they are comparatively rare in Great Britain.

Baillarger has detailed many of the casualties upon which the advice of his contemporaries was founded, in Vol. VI. 1845, of this work, and has admitted that in certain cases, the impediments have been found insurmountable. It was the appreciation of the possibility of such accidents which induced Baillarger, who is the originator of the instrument, to add two directors, one of iron, and one of whalebone, the first intended to guide into the nasal fossa, the second into the oesophagus.

M. Blanche conceived that he had proposed an improvement, in suggesting that the director should be articulated. This modification is said to have been approved of by Dr. Barrows. Brierre de Boismont introduces the *œsophagienne* tube to the back of mouth, closes the nostrils, and, as far as possible the mouth, and trusts to the suction downward in the act of inspiration. Leuret suggested that both the tube and the director should be made of animal tissues, and that they should be allowed to remain in the passages until abstinence was overcome. Such a procedure must have demanded a degree of immobility or restraint, scarcely attainable or justifiable. But both the absorption of the tube, and its innocuousness, receive a discouraging

comment from a recorded case in which, after remaining in situ, no alteration in the tissues had taken place, but where ulceration of the nostrils had ensued.*

Unintimidated by such consequences Pouzier and Delasiauve have recently stated that they have allowed the ordinary elastic tube to remain in the passages during various periods, in fact, until interference became unnecessary. M Bougard's mode is to introduce a hard material between the teeth, in other words a gag, in the center of which is an orifice with which is connected a curved steel tube, passing into the pharynx, along which food is passed, the said tube having been modelled from the buccal cavity and throat of a corpse, the whole apparatus being secured by straps buckling at the back of the neck. Charnière, on the suggestion of M. Billod, constructed this instrument of silver, and added a valve at the commencement of the steel tube, in order to prevent the reflux of the matters injected. This instrument now designated the silver mouth, has been used by its inventor for twenty-five years, with entire success, with the exception of cases where the jaws can not be forced asunder, where the patient refuses to swallow, or ejects the fluid by the side of the tube, which amount to about one third of the whole in which food is refused. Belhomme uses a vessel which may be described as a baby's sucking bottle with a spout. A similar contrivance, bearing the name of Paley, and where there is a valve at the extremity of the *biberon*, under the command of the operator, has attained some celebrity. The last mechanism proposed, is the laryngeal speculum of Labordette, combining the merits, it is asserted, of separating the jaws as if they were moved spontaneously, of keeping them, the mouth and fauces gaping, and of depressing the tongue,

*Annal. Med. Psy. 1847 Vol. IX. p. 115.

and guiding the œsophageal tube into the passage. It has been objected to this invention that its inner extremity may cover and close the epiglottis; but the accident is prevented, according to M. Voisin, by the curvature of this part of the apparatus, which he likewise recommends as preferable to the naso-œsophageal tube, which he accuses of causing abrasion, ulceration, fracture of the turbinated bones, penetration of the larynx, and as being useless where there is narrowness, deformity or disease of the nares. M. Guislain, to whom we are indebted for portions of the above information, preferred that the sound should be passed through the mouth, but, whatever passage may be chosen, we can not regard the act as free from peril, unless most efficient means be adopted to prevent resistance and restlessness, and how barbarous that act may appear, even when directed by the gentle and benevolent Guislain himself, may be judged of from the following quotation. "When opposition is expected or manifested, the patient is placed upon his bed, or mattress, by seven or more attendants; two of these hold down or sit upon the knees and legs, two sit upon and hold down the shoulders and arms, one places himself astride the pelvis, one receives the head, and bends it gently backward, and others introduce the tube through the nostrils, or by forcing open the jaws by a stilet and forceps, through the mouth as may be determined upon." We find, in 1857, an instrument in almost all respects similar to that of Baillarger, except that the tube does not seem to have been passed down into the stomach, recommended by Dr. Hamilton, as in use in the Western Lunatic Asylum, Virginia.*

Griesinger expresses a decided preference for the naso-œsophageal sound, founded upon its use for twenty years, during which no accident had occurred. Baillar-

*American Journal, Vol. XIII. (1857) p. 279.

ger also states, in support of the facility, rapidity, and innocuousness with which this instrument can be used, that it had been resorted to in three cases upon six hundred and twenty occasions without difficulty or accident. Did any importance attach to such calculations, it might be worthy of record that one individual in this asylum was fed by the stomach pump, &c., two thousand one hundred and thirty times. In a discussion in the Medico-Psychological Society, prosecuted at adjourned meetings for nine months during the present year, in which fourteen of the most eminent Parisian psychologists participated, very conflicting opinions were enunciated as to the best *modus operandi* in feeding, but the majority of the debaters were in favor of the naso-œsophageal tube. All seemed keenly alive to the difficulty presented by spasmodically shut jaws, and many ignoring the efficacy of the expanding screw, suggested surprise, fear, electricity, &c., as the means of overcoming this obstacle. Luther Bell is nearly as emphatic in his approval of the stomach pump. In his opinion I cordially concur. For forty years I have tried, or seen tried, the various methods mentioned, and many others of less pretension and have no hesitation in pronouncing the syringe, and elastic tube introduced by the mouth, when *proper precautions* are taken, more safe, more successful, and more easily applied than any other apparatus which has as yet been proposed. The words "when proper precautions are taken," have been selected advisedly, as, when this instrument, whatever modification it may have undergone, is employed while the patient is kept in a recumbent or reclining posture, and while he is so detained by the muscular strength of those around, there is danger and uncertainty in its application. While food is administered, the position should not be supine, should be as nearly natural, or

what is assumed while meals are taken, as possible, as this facilitates the descent of the tube, and, so far prevents regurgitation. Continuance in this position should be assumed by mechanical contrivance, the substitution of a funnel, which is to be raised above the level of the mouth, or of Davidson's or Higginson's caoutchouc bag, which is to be compressed by the hand, in order to propel its contents, for the syringes are objectional expedients, because it is difficult or impossible to deliver the food in successive and regular waves and boluses into the stomach, and because there is a strong temptation to shorten the operation by pouring in the prepared aliment at once, or as rapidly as possible. Dr. Gray, Utica, U. S., employs the former mode, opening the jaws by the expanding screw. We find Dr. Sheppard, who also depends upon the same method, recommending it upon the very ground that the process may be completed expeditiously, he says, in two minutes.* But, however brief the operation, restraint is required in the shape of rugs or sheets, which are held down over the body, by assistants kneeling on their edge, but even with this assistance, an expert confesses that the introduction of the tube has been found impossible, chiefly, in our apprehension, from the attempt being made while the patient is placed horizontally. Yet we are assured that in an asylum where this practice has been adopted nine thousand times, no accident has occurred. It is beyond the scope of this paper to enter upon the quantity or quality of the nutritious substances to be given at each meal, but it may be added that all continental authorities urge the propriety of the slow introduction of these "drop by drop, wave by wave, spoonful by spoonful," except where there is great irritability of the stomach, and a

*Sheppard's Lectures on Madness, London 1873.

tendency to vomit, when the operation may be performed more briskly. My arrangements have been as follows: when all moral resources have been exhausted, the patient, in the presence of the responsible medical officer, is placed in a feeding chair, a technical description of which will be found below; the main characteristics are first, that its sides and back are softly padded: second, that in the latter there is a hollow for the reception of the head of the patient: third, that straps of leather or a girth are so placed as to fix and render immobile the arms and legs: fourth, that broad girths pass across the thighs and chest and thorax for a similar purpose: fifth, that the back of the chair moves upon a circular hinge and can be depressed solely, however, to enable an attendant effectively to steady the head: sixth, that this machine is fixed in a broad heavy case, which renders agitation or overturn impossible: seventh, that the jaws are separated by Newington's forceps, and kept apart by a gag of ivory or hard wood, with an opening in the center for the transit of the tube. The stomach pump in use, differs in nothing from that so long employed in cases of poisoning, intoxication, &c., except that the cylinder or reservoir is somewhat larger, the openings and the ball and socket wider, the caliber of the pipe being somewhat greater, and the distal extremity having a terminal slightly bell-shaped, instead of a lateral opening. This instrument, with slight modification, is now very generally in use, and has received the approval of such contemporaries as, Wilkes, Bucknill, Rhys Williams and Tuke. These slight differences enable semi-solid food, such as pemmican, or crushed, or minced meat, or vegetables, sago, ground rice, crumbs of bread, and all kinds of fluid, medicine, &c., to be given. Whatever the consistence of the meal may be, it should be exhibited slowly, and at regular intervals, and should

occupy the time required for an ordinary repast. No difficulty or obstacle has ever been encountered in the passage of the pipe which is as easily effected as that of a male catheter. The only points to be attended to in passing the instrument, are that it should be moved slowly, inclined toward one or other of the pillars of the arch of the palate, that special caution should be observed, as the cardiac orifice of the stomach is approached, that a candle should be placed at the upper extremity, in order to ascertain whether air escape or not, that the tube should not be withdrawn until it be quite emptied, and should be drawn quickly out, when conceived to be in the vicinity of the glottis, placing the finger upon the orifice, which has been detached from the syringe, as by the escape of a portion of the contents at this time into that opening, accidents have taken place, especially in debilitated and paralytic patients. A single introduction has very often proved sufficient to convince patients of their utter helplessness, of the uselessness of obduracy, nor has it been necessary to add disgust to the other disagreeable sensations impressed by the operation, by threatening to resort to a clyster pipe, or to mingle nauseous drugs or repulsive comestibles with the meal. Once only did misadventure ensue, when my medical assistant having passed the tube rather quickly, it must have come in contact with the internal wall of the stomach, as vomiting and great irritation immediately followed, which were succeeded by constitutional disturbance, exhaustion, and death, after a period of eight days. It may be that this painful event might be traced to the pre-existence of gastritis or to structural changes in the stomach, which were the real causes of the refusal of food, but the fact should be looked upon in its base and most repulsive aspects. A similar misfortune took place in a public hospital where it was supposed the mucous membrane

of the stomach had been sucked into the lateral opening at the extremity of the tube, while its contents were removed.* The physical appliances and the provisions above sanctioned were initiated and persevered in during the wild and insensate crusade waged against restraint, under whatever circumstances, and with whatever motive or purpose resorted to, and were adopted as the teachings of the law of humanity as well as of the law of science, and as promptings similar to those which cast a plank to a drowning man, and force a suicide back from a precipice. I was fully aware that insensibility produced by anæsthetics had been, as it now is, substituted for the temporary coercion which I advised, but I entertained, and still entertain, grave doubts as to reliance upon ether, chloroform, or narcotics, in such an exigency. First, because we have enfeebled diseased organs, and fatty, flabby, and thin-walled hearts to deal with, and, chiefly, because during unconsciousness, the powerful moral impressions produced by the preparations for, and the invariable success of the operation can not be expected. But the sanction of the highest authorities was subsequently extended to the procedure which I adopted, for we find Brierre de Bois-mont and Billod recommending that patients about to be fed should be placed in a chair, and secured by a camisole. Belhomme that they should be placed in a closed bath, one from the lid of which the head alone protrudes, and Bucknill, that they should be rendered motionless by being enveloped in sheets, tightly swathed around them, and that then food should be given. The latter likewise approves of the gag, expanding wedge, and stomach pump, and has never seen any injury inflicted by their use. Drs. Stevens and Blandford approve heartily of all the steps taken in this Institution.

*Bucknill and Tuke "Psychological Medicine" p. 756.

The most satisfactory vindication, however, both of the process and the steps by which it is preceded is, that during a period of thirty-four years, neither I nor my successor in the Crichton Institution, Dr. Gilchrist, have ever lost a patient from inanition. Great support to this thesis may also be derived from the length of time abstainers may be supported by artificial alimentation, even when laboring under formidable maladies in addition to insanity. Zelachi, of Turin, sustained a melancholic for two years and nearly two months.* Luther Bell, McLean's Asylum, Massachusetts, fed one patient for eighteen months, and another for twenty-four, with benefit and increase of flesh. While Dr. Gilchrist was associated with me as Medical Assistant in the Crichton Institution, a lady was maintained for two years and eleven months, and who ultimately died of epilepsy, and during the past summer, a friend lost a patient, who had been effectively fed while in a state of fatuity, for two years and seven months. I have heard of two cases, in one of which life was supported for five, and in another for eleven years, but am not in possession of the particulars. So confident am I of the facility and success with which this practice can be carried into effect, that I would suggest its adoption, not merely in cases of voluntary fasting, or where the trachea and cesophagus have been wounded, but where there is any impediment to the act of deglutition, wounds or tumors of the throat, cancer or syphilis of the tongue, palate, extreme exhaustion, paralysis, epilepsy, hysteria, suspended animation, general paralysis, especially glossopharyngeal paralysis. The latter suggestion may be supported upon the high authority of Doctor, now Commissioner Wilkes, who, under such circumstances maintained a patient for fourteen weeks, by the stomach pump.

**Annales, Med. Psy. 1854, Vol. VI. p. 451.*

CASE OF PERRINE D. MATTESON, INDICTED FOR MURDER IN THE FIRST DEGREE, PLEA, INSANITY.

On Sunday, the 3d of May last, at 1.30 p. m., Perrine D. Matteson shot his brother, Charles L. Matteson, inflicting a wound in the abdomen, from which he died, at 11.15 p. m., the following day. This occurrence took place about a mile from the village of Sauquoit, and ten miles from the city of Utica.

At 9 p. m., of Sunday, the day of the shooting, the brother made an *ante mortem* statement, as follows:

I am about to die from injuries received by a revolver in the hands of Perrine Dexter Matteson, my own brother, on the 3d day May, 1874, on the farm of J. D. Matteson, at one and a half p. m. Perrine Dexter Matteson was in the horse barn chamber; the smoke came from the window after the report of the pistol.

The ball entered the right side, penetrated the abdomen, and on examination by Dr. B. E. Forbes, Dr. James E. Jones, of Clayville, the latter, and Sauquoit, the former—also Dr. Wolcott, the ball was felt on the left side, after examination of these gentlemen.

Chas. L. Matteson and J. D. Matteson, father of Charles L. Matteson, were coming from the barn to the house. I (Charles L. Matteson) saw Dexter in the window; two shots were fired, and the last one took effect, entering the right side, as before stated. No hard words were passed between me and him, only I think he was jealous because I have got a farm and he has not. He has threatened different members of the family at various times. I think it was ugly fits.

I do not think he was insane, but ugliness. He has attempted to take my life on different occasions. He has drawn a revolver on me a number of times. A number of years ago he shot me in

the head, the ball grazing by my temple, breaking the skin a little. I am thirty-eight years old; my brother Perrine is thirty-seven years old.

Signed,

This is

CHARLES L. x MATTESON.

my mark.

B. E. FORBES, Witness.

Sworn to and subscribed to before me this 3d day of May, 1874.

JAMES G. HUNT,

Coroner, Oneida Co., N. Y.

To complete the account, we add the following particulars. The brother Charles L., or Levi, as he was usually called, lived upon a farm of his own, some three or four miles away, while Perrine, being unmarried, lived with his father on the farm where the shooting took place. Levi came home on Sunday, and brought his little girl, to visit her grandparents. The father and son went to the barn together, and having put up the team, stood one on either side of the barn door talking. Perrine passed into the barn, and after about ten minutes, passed out again going between them. He then went toward the house, and after some five minutes returned toward the barn. The father did not notice him again till he saw him through the barn window, after the second shot, which took effect, was fired. He subsequently testified before the Commission. "We were walking toward the house with our backs toward him, two or three steps apart. When the first shot was fired, we turned around, and Levi raised his arm and said, 'there he is,' and the second shot was fired. I did not see Perrine again. He made no noise or outcry. My son Levi did not fall. He said, two or three times, 'Father take hold of me, I am shot in the bowels.' I put my arms around him, and helped him into the house." Immediately after the shooting, Perrine left the premises, and took the track

of the Delaware, Lackawanna and Western Railroad, coming toward the city of Utica. He was arrested near New Hartford, about four miles from the city by a constable, by whom he was taken to the County Jail. He stated to the constable that he was on his way to give himself up to the deputy sheriff, whom he knew well, and who had formerly lived near the Matteson's. At the June term of the Court of Oyer and Terminer, he was arraigned under the indictment for murder in the first degree, and plead insanity, as a general traverse, and his whole defense to such indictment. It was ordered by the court that a "Commission be appointed to examine said Perrine D. Matteson, alias Perrine Matteson, alias Dexter Matteson, and to enquire and report to the said court aforesaid upon the fact of his mental sanity, at the date of the offense aforesaid, with which he stands charged as aforesaid, that said Commission aforesaid shall institute a careful investigation; call such witnesses as may be necessary, and for that purpose is fully empowered to compel the attendance of such witnesses; that John P. Gray, M. D., of Utica, Alonzo Churchill, M. D., of Utica, and Thomas M. Flandrau, M. D., of Rome, be and they are hereby appointed Commissioners for the purpose, and to make the examination aforesaid, and to execute the aforesaid Commission, and this order is made pursuant to the act of 1874, and that this order be entered, and a certified copy be presented to said Commission, and the proper certificate made thereof."

The section of the law referred to, is the 30th under Article Second, of Chap. 446, Laws of 1874.

§ 30. Whenever any person in confinement under indictment for the crime of arson, murder, or attempt at murder, or highway robbery, desires to offer the plea of insanity as a general traverse, and his whole defense to such indictment, he shall present such

plea at the time of his arraignment, and at no other stage of the trial but this, shall such plea or defense be received or entertained by the court; and the court before whom such trial is pending shall have power, with the concurrence of the presiding judge thereof, to appoint a commission to examine such person and to inquire and report to the court aforesaid, upon the fact of his mental sanity at the date of the offense with which he stands charged. The commission aforesaid shall institute a careful investigation, call such witnesses as may be necessary, and for that purpose is fully empowered to compel the attendance of witnesses.

Upon the report of said commission, if the court before whom such indictment is pending shall find that such person was insane and irresponsible at the date of the offense with which he stands charged, the court aforesaid shall order his removal to some State Lunatic Asylum, there to remain for observation and treatment, until such time as, in the opinion of a justice of the supreme court it is safe, legal and right to discharge him.

In accordance with the order, the Commissioners made their report which embodies all the essential facts in the history of the case, brought out by the examination of witnesses under oath. It is a condensed resumé of a large mass of testimony, and so clearly and fully sustains the conclusions of the Commission that we reproduce it in preference to attempting any other analysis of the testimony.

The People vs. Perrine D. Matteson, alias Perrine Matteson, alias Dexter Matteson. To the Presiding Judge and Justices forming the Court of Oyer and Terminer in and for the County of Oneida:

We, the undersigned, appointed in and by the order of this Court, bearing date the tenth (10) day of June, 1874, Commissioners under the statute of the State of New York, to inquire and report to the said Court upon the fact of the alleged insanity of the said Matteson, as averred in and by his plea to an indictment charging him with the crime of murder in the first degree, do respectfully report: that we convened on the 24th day of July, 1874, and duly organized by taking the constitutional oath, which is appended hereto, and that we appointed the 29th day of July, aforesaid, for the examination of witnesses and the taking of testi-

mony touching the said inquiry, and that on that day and the day following, and on the 7th and 8th days of August, we took the testimony of various witnesses under oath duly administered to each of said witnesses, and that all of said testimony was reduced to writing, which is hereto appended and forms a part of this report, and to which we beg leave to refer the Court; that on said examination we were attended by Thomas E. Kinney, Esq., the counsel of said Matteson, and by D. C. Stoddard, the District Attorney of the County of Oneida, with whom, by the advice of the Court, was associated Hon. William J. Bacon as counsel and adviser of the Commissioners; that as the result of such examination, and of the testimony taken before us as aforesaid, we find that the said Matteson was thirty-seven years of age in the month of January last past; that he was a feeble child from his birth, but of ordinary intelligence until at the age of six years, when he had a severe attack of scarlet fever, which left him deaf in one ear, and afterward "he was subject to a sort of nervous fits," as described by a witness, and continued in feeble health up to manhood. Although sent to school with other children, he acquired but little education, and that with considerable difficulty, and he was not only dull and feeble-minded, but as described by witnesses, much below the average intellect of children of his age. As testified by witnesses who knew him, all through his manhood he was subject to frequent outbursts of passion, sometimes from slight irritating causes and at other times without any apparent cause. He never pursued any steady employment either on the farm of his father, where he lived, or elsewhere, and was never known to have done a single steady day's work, and did not appear to have capacity to originate any plan of labor for himself, or to follow any pursuit suggested by his father or others, as shown by the testimony and by personal examination. He spent much of his time wandering about the premises and neighborhood without any apparent object, often leaving home and being absent days and weeks and even months at a time, without any plan or object, generally not informing his family of his proposed absences. On one occasion he wandered away and was found in Connecticut, and there expressed the avowed object of going to sea, and at the end of one voyage, he would become the captain of an East India ship, and make a large amount of money. He was then without means and was sent home to his friends. In October, 1861, he enlisted in the army and joined the 14th Regiment N. Y. Volunteers, from which he was discharged in January, 1862, for "Mental Disability—Imbecility"—as stated in the certificate of

discharge which was presented and proved before us. While in the service, according to the testimony of a member of the regiment who knew him well, "He was discharged as unfit for service; I saw him nearly every day; don't know as I ever saw him do any duty." He returned from the army in a broken state of health, from which he seemed to have so far recovered that in November of the same year he went to New York and, without the assent of his parents, enlisted in the navy, from which he was discharged in February, 1873, and was brought home by the brother who was afterwards shot by him. He was then in very feeble health, as described by witnesses. Since that time he has remained at his father's house, without any regular employment, and wandering about without any definite plan or object, as before stated. He was treated in the family as a weak-minded and feeble person, and when young the care and oversight of him was entrusted to his brother above mentioned, who appears from the testimony to have treated him generally with kindness, and in later years with pity. He manifested great conceit and an exaggerated estimate of himself,—a state of mind frequently associated with a weak and ill-balanced intellect. He had frequent fits of jealousy, and indulged violent prejudice against said brother without any adequate cause, and alleged to neighbors, as shown in the testimony and asserted by him upon his examination, that scars upon his head were caused by his brother, an allegation not sustained by the testimony beyond his own assertions.

For a number of years past he has manifested great enmity towards his brother, father and mother, giving frequent and repeated expressions to such enmity, accusing them of attempts to poison him; often refusing to take his meals with the family on this account, and frequently prepared his own food in the morning and then left the house. Returning at night, he again would prepare his supper, and at once would retire to bed without having any intercourse or association with the family. He continued to retain the feelings of jealousy and enmity towards his brother, although the latter lived some two miles away, and for the last two years saw him infrequently. He has frequently threatened to kill the entire family and burn the buildings, and has manifested such violence and excitement as to inspire the fear that these threats would be carried out. Before the homicide they had consulted as to the propriety and necessity of having him taken care of as a dangerous person. He also asserted and reiterated the assertion that his father and brother had been guilty of high crimes

including the murder of several persons, and that the whole family constituted part of a gang of thieves and robbers, whom it was his duty to bring to justice.

On the 17th day of July, 1873, he addressed a letter to D. C. Stoddard, Esq., the District Attorney, charging that he had knowledge of great crimes committed by certain parties, and declared: "I am certin and shure of one thing that I Poses they key to onlock that the wrld may read quite a large share of the lomis gange it is my dasire to do the rite and ack the rite in all casis." The letter is appended to this report. Shortly after, he called upon the District Attorney, declared his father and brother were the criminal parties referred to in his letter, and the names therein mentioned were of those whom he alleged had been killed by them. These persons, however, had long before died of ordinary diseases, as proved on this examination by the testimony of the physicians who attended them and by others. He averred in his own examination by us, that his letter referred to criminal acts by his father and brother, as stated by Mr. Stoddard. All these assertions in regard to his family and their alleged acts were in fact insane delusions in which he indulged, and which steadily increased in strength down to the period when he committed the homicide, and which still remain in full force in his mind. He declined to eat some apples, crackers and raisins sent by his family while in jail, and told the officer not to let his children eat them, who testified—"He told me confidentially that the food was poisoned." He was more or less intemperate in his habits, also was addicted for many years to a degrading and self-polluting vice, both of which tend to enfeeble the intellect and blunt the moral sense. The reasons he gave for discharging the pistol by which the death was caused, were, in his own language, "My brother would come to our house and would see me, and come at me and look at me in such a way that I knew he meant to kill me. On the morning I shot my brother I did not intend to shoot them. I wanted to scare them, and they would appear against me in court and I could then tell of these murders my brother had committed." His knowledge of these alleged crimes, he claimed, was brought to him by the parties who had long been dead, and who, from time to time, appeared to him and urged him to the performance of the duty of bringing the guilty gang to justice, and that he felt bound to do their bidding. We further report that we had the prisoner before us during the entire investigation and examined him personally and noted his appearance and manner. He gave but little atten-

tion to any of the evidence and did not seem to appreciate its character. He was also put on the stand and testified, asserting and affirming all the delusions hereinbefore set forth, together with the hallucinations of sight and hearing in his alleged interviews with the dead. He is in impaired health, complains of almost constant pain in the head, particularly over the right temple, where a large scar is visible, has a dull, vacant look, skin pale and sallow, and he moves slowly, with a feeble, shuffling gait. At the close of the examination, and while the District Attorney was asking him some questions, Matteson was suddenly seized with an epileptic fit, exhibiting the manifestations attending such a seizure, to wit, great pallor, followed by a purple flushing of the face, pouting of the lips, twitching of the face and convulsive movements of the head, arms and legs, and profound unconsciousness for twenty-two minutes. About five minutes after the seizure began, and when the convulsive moments ceased, he became deathly pale, pulseless in the right wrist, and broke into a profuse perspiration over the entire surface of the body, which continued some ten minutes and suddenly ceased, and the skin became dry and color returned. During this period the breathing was almost imperceptible, pulse barely detectible in the left wrist, and the entire body motionless, except a quivering of the upper eyelids and rapid oscillation of the eyeballs. At the end of twenty-two minutes he rolled on his face, then turned and stared about the room, and with some difficulty got up on the chair, and said he felt sick. We therefore find and report from the whole testimony taken, and our examination of the said Matteson, that at the date of the commission of the homicide with which he stands charged, and for which he has been indicted, he was of unsound mind, and imbecile and insane, and, therefore, "from that cause unaccountable for the crime" which in the indictment is laid to his charge.

All of which is respectfully submitted.

Utica, August 10th, 1874.

JOHN P. GRAY,
ALONZO CHURCHILL,
THOMAS M. FLANDRAU,
Commissioners.

The Commissioners filed their report, and the testimony which constituted a part thereof, in the County Clerk's Office, on the 13th of August, 1874.

At the September term of the Court, Hon. Le Roy Morgan, presiding, an order was issued for the removal of the said Perrine D. Matteson to the "State Asylum for Insane Criminals at Auburn" in accordance with the last clause of the section of the law quoted above.

As this is the first case which has been disposed of under the application of this section of the new law, it has a special interest. The result was satisfactory to the Court and to the community. The time of the Court was not consumed by the trial of the question of the sanity of the prisoner. The expense of such a trial was not imposed on the county, and full and impartial justice was done. These are certainly advantages which are commendatory of the law.

DELIRIUM TREMENS.

BY DANIEL H. KITCHEN, M. D.,

Chief of Staff, Charity, Fever and Small Pox Hospitals, &c., New York.

The mental and physical derangements, arising from the use, or rather abuse of alcoholic liquors, are so numerous and variable in their forms and phases, as to cause considerable confusion, even among the most eminent psychological and medical experts. The forms most definitely known and understood on this and the European continents, are called alcoholism and delirium tremens which are separate diseases, and present invariably distinct symptoms, variation whenever it does occur, being within certain well known limits, precluding the possibility of mistake.

It is an error with some writers to describe delirium tremens as a mania of, or arising from intoxication, thereby confounding it with what is recognized as alcoholism. Dr. Ray remarks that "it may be the immediate effect of an excess or series of excesses in those who are not habitually intemperate, as well as those who are; but it most commonly occurs to habitual drinkers after a few days total abstinence from spirituous liquors. It is also very liable to occur to this latter class when laboring under other diseases, or suffering from severe external injuries that give rise to any degree of constitutional disturbance." As regards general temporary incapacity, delirium tremens exercises just the same influence in the total destruction of moral and intellectual responsibility as delirium or insanity from other causes.

Wharton and Stillé, in their Medical Jurisprudence, say that "delirium tremens is not the intended result of drink in the same way that drunkenness is." It is the result of prior vicious indulgencies, but differs from intoxication in being shunned, rather than courted by the patient, and in being incapable of voluntary assumption for the purpose of covering guilt. That the person under the influence of delirium tremens is mentally, morally and legally irresponsible for acts done during the paroxysm, is now universally conceded, both within and without the pale of civil and criminal tribunals.

In the case of United States v. Clarke, the earliest case of the kind on record, the court charged the jury that if they "should be satisfied by the evidence that the prisoner at the time of committing the act charged in the indictment, was in such a state of mental insanity, not produced by the *immediate* effects of intoxicating drinks, as not to have been conscious of the moral turpitude of the act, they should find him not guilty." Justice Hoy, also, in the great American case, declared criminal responsibility not to attach where the delirium is the "remote consequence" of voluntary intoxication, "superinduced by the antecedent exhaustion of the party, arising from gross and habitual drunkenness."

"However criminal in a moral point of view, such an indulgence is, and however justly he may be responsible for his acts arising from it, to Almighty God, human tribunals are generally restricted from punishing them, since they are not the acts of a reasonable being. Had the crime been committed when Drew, (the defendant) was in a fit of intoxication, he would have been liable to be convicted of murder. As he was not then intoxicated, but merely insane from an abstinence from liquor, he can not be pronounced guilty of the

offense. The law looks to the immediate, not to the remote cause." In another recent case, a federal judge, of high authority, told the jury that if the defendant was so far insane as not to know the nature of the act, nor whether it was wrong or not, he is not punishable, although such delirium tremens is produced by the voluntary use of intoxicating liquors.

The following graphic delineation of the distinction between delirium tremens and insanity, has been given by Justice Holroyd, of the English Bench, in John Burrough's case, (1 Lewin, C. C. 75,) and is also universally acknowledged as good law in the United States Courts. He says, "drunkenness is not insanity, nor does it answer to what is termed an unsound mind, unless the derangement which it causes becomes fixed and continued by the drunkenness being habitual, and thereby rendering the party incapable of distinguishing between right and wrong."

As early as the year 1820, Tiedeman, Gmelin and Majendie, made some interesting and important investigations as to the poisonous nature of alcohol, and its influence upon the blood and the system generally, detecting the presence of alcohol in the blood by its odor; and Sir A. Carlisle subsequently observed that the fluid found in the ventricles of the brain of drunkards, had the smell, taste and inflammability of gin. These inquiries and deductions naturally led the way to the determination of the pathology and distinctive symptoms of alcoholic poisoning, drunkenness and delirium tremens arising from the excessive use of alcoholic liquors, and to the establishment of a definite differential diagnosis in reference to these diseases.

Leoville, in the year 1828, was the first to promulgate the theory that delirium tremens could be distinguished by an exalted condition of the "vital powers

of the brain, excited by molecules saturated with alcohol absorbed from the surface of the stomach and bowels, and carried into the current of the circulation." Recent researches, however, have established beyond dispute, by experiment and by daily experience, that the alcohol is instantaneously absorbed into the circulation, and operates as a direct poison on the nervous tissue through which the infected blood circulates.

As an inevitable consequence, the peculiar odor of alcohol impregnates the breath and permeates even the pores of the body, and imparts a pungent, spirituous aroma to the clothing. Post mortem analyses have revealed the presence of alcohol in the blood, the urine, the bile, the fluid of the serous membranes, the brain and the liver.

Dr. Percy made some experiments, specially with relation to the rapid action of alcohol on the circulation ; he injected strong alcohol (about 10° under proof,) into the stomachs of two dogs, and scarcely two minutes after the injection, all respiratory and cardiac movements ceased, and on autopsy, the stomach was found nearly empty, and the blood highly charged with alcohol.

The combined testimony of French, British, German and American physicians, proves that, in that state in which the system is peculiarly susceptible to delirium tremens, the blood is surcharged with unchanged and unused material, and contains at least *thirty per cent.* more of carbon than in the normal state. The order of events by which this condition is brought about may be thus stated. The alcohol is immediately absorbed by the blood vessels, without change or decomposition. A portion of it is slowly eliminated by the lungs, liver and kidneys, as alcohol simply, a portion remaining in the brain, liver, muscles, &c., for a time,

undecomposed. The products of the decomposition, by absorption of the free oxygen of the blood, are water, acetic acid and carbonic acid. The oxygen being thus diverted from its legitimate function, the exhalation of carbonic acid through the lungs is materially diminished, and the health correspondingly endangered by the lessened excretion of urea and uric acid. The presence of alcohol in such undue proportions, is, beyond all doubt, the primary agent in the retention of this uneliminated matter; and the consequent impairment of health is intensified to a still greater degree by the increased frequency of functional acts, and subsequent depression thereby produced, due to the stimulant action of the alcohol.

The tissues, generally atrophy, and while a particle of alcohol remains in the blood in its normal condition, it exercises a toxic or poisonous effect upon the whole nervous system through which the poisoned blood circulates. Hence, if a constant supply of alcohol be kept up, the alcoholism becomes permanent or chronic, and a series of acute paroxysms, usually in the form of delirium tremens, supervene, though occasionally, if the degeneration of the vital organs becomes excessive, fatal results ensue from asthenia or typhoid symptoms, accompanied by coma.

One of the chief and most essential elements in the causation of delirium tremens is the poisoning of the nerve-substance of the entire system, and more especially that of the brain. These effects produced on the cerebrum and medulla oblongata are repeated in the lungs, a constant sympathy existing between these organs. The accelerated motion and fevered condition of the blood, which is incessantly kept up in the case of the habitual drinker, is especially manifested by certain cerebral, thoracic, and other general phenomena

in the loss of cerebral power, evinced by the absence of control over thoughts, emotions and muscular action; the feeble and rapid action of the heart, the involuntary tremor and weakness of the muscles, and the mental agitation and terror which are ever on the increase. Should the patient eventually recover from these paroxysms, subsequent indulgence in similar excesses entails upon him, not only a persistent susceptibility to a recurrence of these phenomena, but inevitably and irrevocably gives rise to a permanent degeneration of all his physical and mental faculties, with a train of ills, such as cachexia, emaciation, marasmus, sexual incompetency, delirium, suicidal melancholy, permanent psychical aberration, and such like morbid phenomena, ending not unfrequently in epileptiform seizures, idiocy, or general paralysis.

And here a highly important consideration occurs to our mind, which has long been a subject of controversy, but has now received a tolerably decisive and reliable solution, viz.: The transmission of this morbid appetite for intoxicating drinks, from one generation to another, and the inheritance, by the drunkard's progeny, of the long and fearful catalogue of alcoholic sequelae, in a chronic form. Morel, Whitehead, Adams, and other eminent authorities, affirm that the vice of alcoholic abuse is not only hereditarily transmissible, but that it also leads to congenital idiocy, or insanity, in even the third and fourth generation, and, furthermore, that in cases where the tendency to alcoholic excesses has an hereditary origin, cure is, as a rule, impossible. Morel cites, as an example, a family that came under his own professional notice, in which the great-grandfather was a confirmed drunkard, and so marked and complete was the transmission of the disorder, that the race became totally extinct, under the recognized phenomena of alcoholic poisoning and degeneracy.

MORTALITY.

Some interesting and accurate statistics as to the mortality of the disease, and its relative frequency among either sex, have appeared in the British Army Reports, and afford valuable data for prognosis, while the facts there detailed are pregnant with suggestions as to the course which social reformers and philanthropists should take in arresting its progress. The report for 1853, (prepared by Sir Alex. Tulloch,) gives the undermentioned per centages of the mortality from delirium tremens in the Home Service, (consisting of about 78,000 men,) and the chief depots in the colonies (say about 40,000 troops,) excepting India, which for obvious reasons we shall consider separately. We would remark, *en passant*, that, on investigation of the reports of the last twenty years, no perceptible change in the ratio has occurred, and these calculations may therefore be considered an accurate transcript of the mortality at the present period.

	Per Cent.
Great Britain, Infantry,.....	17.6
Great Britain, Cavalry,.....	13.8
Bermuda,	15.0
Canada,.....	7.94
Gibraltar,	13.6
Malta,	8.8
Nova Scotia,.....	9.1
United States,	8.0

The report and statistics furnished by the medical authorities at the General Hospital in Calcutta, and the Medical College Hospital, relating to, and gathered from the records of five consecutive years, reveal the following facts:

1. That the disease occurs in women and men in the proportion of one to twenty-five, due rather to difference of habits, than of sex.

2. That no evidence has been given to warrant us in asserting that the season of the year has any definite influence on the occurrence of the disease, though the mortality shows a marked augmentation during the eight hot months, the number of deaths being more than double the proportion occurring in the four cold months. These facts are borne out by our own experience in this Hospital.

The accompanying table will show that the greatest mortality occurs between the ages of twenty-five and forty, (a fact which is corroborated by the statistics of our delirium tremens wards,) and also evidences that there is no uniformity in the proportion of deaths to the number of cases.

3. That in regard to age, the ratio is as follows:

Age.	Cases.	Deaths.	Per Cent of Deaths
20 to 25	34	4	9.1
25 to 30	66	16	24.2
30 to 35	48	11	22.9
35 to 40	76	7	9.2
40 to 45	62	6	9.6
45 to 50	23	4	17.3
50 to 60	7	—	—
60 to 65	5	1	—

In delirium tremens the chief elements to be considered in the prognosis, are the absence or occurrence of sleep before the patient becomes exhausted, the character of the sphygmographic record of the pulse movements, and the introduction of an adequate amount of nourishment into the system. It has never been advanced or seriously believed that sleep is, in itself, curative. The disease has a certain course to run, its longer or shorter duration resting simply on its original virulence, the strength of the patient's constitution, and the degree of nutrition and support rendered by the regular and frequent supply of well selected food. In the case

of an extremely hard drinker, or the complication of pneumonia, the chances of recovery are materially diminished. A first attack is much less dangerous, much less likely to culminate fatally, than a second, third or fourth attack, but there are, of course, important exceptions and qualifications to this law, which can only be discovered by careful diagnosis. For example, a man of middle age suffering under a first attack of delirium tremens, whose nervous system has been much enfeebled by chronic disease, or an insufficiency of feeding, but who has never, until recently, indulged to excess in drink, is extremely likely to succumb to the first attack. The fact that his system has been run down by mental anxiety and want of food, and that the eliminating organs, (the kidneys especially,) are unused to the duty of excreting large quantities of unchanged alcohol, render his recovery extremely improbable; whereas, on the other hand, a young man, (a young sailor, for instance,) whose first debauch has induced delirium tremens, may, from the inherent strength of his constitution, survive not only one, but two or three similar visitations.

SYMPTOMS AND COURSE.

The period of actual commencement, and the premonitory symptoms of this disease have been points of controversy for many years. Dr. Lairdner denies that the proximate cause is the sudden withdrawal of potations, and affirms that it is the immediate product of a protracted debauch. The opposing theory simply asserts that a voluntary abstinence from alcoholic stimulants of some two or three days, precedes an attack of delirium tremens, and that the combined influence of the sudden withdrawal of alcoholic stimulants, and the absorbed alcohol remaining in the system, produces the

catastrophe known as delirium tremens. To this latter opinion we subscribe, for there are many who are constantly taking small quantities of spirits, and who, though they never become unconscious from its intoxication, considerably exceed their accustomed allowance, and continue in that course. The symptoms of delirium tremens generally occur in these persons from the second to the eighth or ninth day after a protracted debauch, and the premonitory symptoms are not unfrequently lost sight of.

The usual course may be thus described: the first warning of its approach, is given by an attack of complete insomnia. Some pathologists divide the subsequent symptoms into several stages, but without apparent reason other than their individual tastes. The succession of symptoms after the premonitory insomnia, is usually in this order. The pulse is peculiarly slow and feeble, the hands and feet are cold and clammy, there is profuse sweating, with great disability, and nausea and vomiting in the morning. Anything which affects the mind or spirits, produces a tremulous agitation. In vain the sufferer wooes sleep, it has fled from him. At the best, his slumbers are short and fitful snatches, broken in upon by visions and hallucinations of the most horrifying character. If he close his eyes but for a moment, he is relentlessly pursued by these phantom visitants; and even in broad daylight, with his eyes wide open, these creatures of his disordered imagination, surround him on every side. During all this time there is so complete an absence of appetite in most cases, that little if any food is taken, a circumstance that contributes materially to the intensity of the disease. And now the anxiety and nervousness is exchanged for incoherence of speech and wild excitability of manner, sometimes evidencing itself in

causeless anger, or in great terror at the terrific forms which people the chamber, and which he is continually endeavoring to push aside with his hands. He talks incessantly in a rambling manner. His pulse is quickened from 100 to 130 or 140 per minute; it is sometimes small and thready, occasionally soft and voluminous; and the form of the pulse waves closely resemble those in fevers of a typhoid type. Muscular tremor, from which the disease derives its name of *delirium tremens*, is by no means universally present. Craigie affirms that it is ever present, in cases of confirmed dram-drinkers, but in point of fact, it is only an exaggeration of the chronic tremors of the extremities, which are the inevitable penalty of hard drinking. But even in the absence of this muscular *tremor*, there is a constant restlessness, the patient shifts restlessly in the bed, constantly getting out if permitted. The pupils of the eyes are dilated, and in constant rolling movement. The temporal and carotid arteries throb violently, sometimes the face is flushed, but more often deadly pale. The tongue is tremulous, and protruded jerkily, is ordinarily covered with a yellowish fur, though sometimes it is clean, red and glassy, or again, brown, dry and cracked. After this state of things has continued for three or four days, the patient passes into a drowsy condition from which he awakens to a state of comparative convalescence, or, in the event of adverse complications, with an augmentation of the delirium. In other cases, the patient, in the midst of violent delirium, with great excitability, suddenly collapses; the pulse becomes hurried, intermittent and thready, the features pinched and ghastly, the breathing, gasping, and death speedily ensues.

The stage of convalescence, once established, presents nothing particularly requiring description. Should a

relapse, however, occur, he passes into a comatose condition, with muttering delirium, eyes open, staring and fixed; the restless movement of the limbs, more distinctly marked; picking at the bed clothes; or, possibly a profound, stertorous coma, or violent convulsions, which close the scene.

GENERAL SUMMARY OF SYMPTOMS.

Acute delirium and incoherence—stupor—strong suicidal impulse—hallucinations—dread—tremors of the tendons and muscles of the hands and limbs—watchfulness—absence of sleep—great frequency of pulse, 100 to 140 per minute. Form of pulse waves, resemble fevers of the typhoid type—furred condition of the tongue—cool, humid, or perspiring surface of skin—saccharo-alcoholic odor—face flushed, or deadly pale, are the general phenomena. Slight tremor or faltering of hands and knees; tremulousness of voice; unaccountable and indescribable restlessness, sense of anxiety and presentiment, disturbed sleep and loss of appetite. These symptoms generally occur after a sudden abstinence from liquors, and last for three or four days, when the patient ceases to sleep altogether. The above mentioned symptoms increase in severity, and delirium supervenes, at first only during the night, but gradually becoming constant, and necessarily the most prominent feature of the disease. The delirium which is especially characterized by watchfulness, hallucination, terror and apprehensive dread, lasts from three to six days, during which period the imagination of the patient conjures up the most horrible phantoms and visions, his countenance indicates unutterable anguish of mind, and physical pain, and in the hope of escaping from his imaginary tormentors, he often endeavors by acts of violence to take his own life, and that of the persons within his reach.

TERMINATION.

After a time sleep occurs, (that is from three to six days from the period of attack,) at first it is broken, then followed by a profound sleep of six or eight hours duration, from which the patient awakes improved.

TREATMENT.

In the treatment of delirium tremens, many points are to be taken into consideration, as the condition of the patient, the length of time the delirium has lasted, and the surroundings of the patient.

Our custom is to place this class of cases in a large room, well ventilated, with about one-thousand cubic feet of space for each patient.

Usually the patient is much fatigued on admission, and is in feeble physical health, and not infrequently there are complication as bronchitis or pneumonia, and occasionally Bright's disease.

When no complication exists we give a tepid bath. The patient is put to bed, and usually a camisole is required to restrain him.

The usual, and perhaps better treatment, is at once to place the patient on liberal and nutritious diet, as beef juice, cream, or essence, soups, milk, milk punch, egg-nog, &c.

If he is feeble, the reasons for giving stimulants are plain, though the delirium is caused by the same stimulant. Some recommend pure alcohol to be given instead of brandy, whisky or even wine.

Of course, in administering stimulants to this class of patients, great and watchful care should always be exercised. The pulse is a safe guide, as stimulants should lower it and give it fulness. To quiet the tremors and restlessness, opium serves a good purpose, administered by hypodermic injection.

The treatment which in all probability is the most effective, is a generous diet, full doses of fluid extract of conium during the day, to control the muscular action, and during the evening hydrate of chloral, with tincture of hyoscyamus, the latter to be repeated until sleep is secured.

HOSPITALS FOR INEBRIATES.

(FROM A CORRESPONDENT.*)

Ten or more of these asylums already exist, some of which have been in operation for several years. Of these the principal are—1. That at Media, near Philadelphia, opened about seven years ago, and containing twenty-five inmates; 2. The New York State Inebriate Asylum, Binghamton, opened about nine years ago, now capable of containing eighty individuals, but about to be opened for the reception of two hundred; 3. Washingtonian House, Boston, containing twenty-four patients; 4. Shore Sound; 5. Ward Island. There are several others, at Chicago, Maryland, San Francisco, &c. In 1871 the grand total of admissions to some of these asylums amounted to 5,959. Into these establishments inebriates are admitted, either on committal by a magistrate for a specific period; after a process of examination before a judge, and a jury summoned by him, the alleged drunkard being present, and being adjudged as requiring a curator and confinement; and on their own voluntary application and submission to existing rules and regulations. Of the total quoted, 214, or

* This communication was received some months ago, but was crowded out of the last number by the length of the Transactions and other papers.

nearly 4 per cent., come under the first category; 144, or between 2 and 3 per cent., under the second; and 5,515, or 94 per cent., under the third. It bears intimately upon the permanent efficacy of the measures pursued, that of the same number, 1,305, or 23 per cent., were admitted once; 227, or nearly 4 per cent., were re-admitted twice; 97, or nearly 2 per cent., were re-admitted thrice. These Sanatoria, as they are gingerly called, are almost all under the superintendence of medical men, some of whom trust considerably to the employment of drugs during the collapse and excitement which follow excessive or prolonged drinking, and during the convalescence or reconstruction of the tissues of the body, to which much importance is attached; but none of them claim for any therapeutic agent the power of eradicating the habit or tendency, or of curing the disease originating therein. Great reliance is placed in the moral means brought to bear during seclusion, upon exercise, games, occupation in the surrounding grounds or country, in reading, writing, composition, social recreation, and the reciprocal influence of different dispositions associated together; and finally upon a nutritious diet, for it is affirmed that all great drinker's are also great eaters. These places have more the character of well-conducted club-houses, with a Medical Director, than of hospitals. After a brief probation, great confidence is reposed in the penitents, and much liberty allowed to them; certain of their number are entrusted with money, permitted to visit different parts of the country, and to mingle in society, as a test of their self-control; certain others pursue their ordinary business in adjoining towns, but are held to be amenable to the rules and regimen of the hospital. As might have been predicated, from the experience of such classes obtained in this country, these privileges are occasion-

ally abused, though less frequently than might have been expected. Stimulants have been conveyed within the sacred precincts, it has become necessary to lock up individuals excited by their unhealthy craving, and it was proposed, in consequence of irregularities and disturbance in one house, to swear in the servants as constables. But, after making all deductions, what, it may be inquired, are the results claimed by those who have conducted this experiment? It should be premised that the authors whose works have supplied us with information, regard either the subsidence of the paroxysm of ebriosity, or such subsidence followed by a period of lucidity and temperance, characterized by convictions of the evil and danger, and degradation of relapse, and by a determination to avoid or resist temptation as a cure of the disease. This lucid interval varies in the opinion of different observers from days to weeks, months, years. The most modest estimate of the curability of drunkenness or dipsomania, for these are not distinguished, is that thirty-four or thirty-five per cent. of those subjected to treatment are restored to permanent health. This is given on the authority of Drs. Parrish and Dodge, but fifty, sixty, even ninety per cent. cures are claimed as crowning the labors of other physicians; or to place the statistics in another form, of 256 patients received from October 1, 1871 to 1872, into the Binghamton Asylum, 198 were discharged with great hopes of a permanent reformation, and fifty-eight unimproved; of 278 patients admitted into the Pennsylvania Sanitarium, in the same period, ninety were cured, 130 improved, and thirty-five were regarded as incurable; of fifty-four patients admitted into the Maryland Asylum, at Baltimore, forty were discharged as having received benefit, ten as having received decided benefit; and of 3,322 that have been

received into the Washingtonian House since its commencement, "we have the satisfaction of knowing that a large proportion of them have become permanently reformed; have regained their former position, and become again exemplary members of society." This is not the place to expose the fallacy of the standard of cure here employed, further than to mention the irreconcilable discrepancy between the results recorded and those observed in this country, or to suggest the difficulty which must be experienced in tracing out the subsequent deportment of discharged patients, or to show how fugacious must be the change effected, further than to quote from the reports of the Maryland Asylum, that fourteen patients were admitted once, eight twice, and two, three times, with an average of only two months' interval between each attack. Nor is it necessary to insist upon the opinion of eminent psychologists, such as Drs. Kirkbride and Ray, that these cures are not permanent or real, or that the reporters deal in "general assertions and flourishes." As, however, the whole subject has assumed a different phase in the United States, and as an animated controversy is now going on there as to whether habitual drunkenness be a sin or a disease, it becomes expedient to consider whether the existence of such retreats, dignified as hospitals, and administered with all the solicitude and benevolence, and supplied with all the delicacies and luxuries, which the sorrowful and the suffering require—may not act as premia or encouragements to indulgence; may be resorted to, chiefly to obtain, not reformation, but a clean bill of health and a whitewashed character; and, as workhouses are supposed to perpetuate pauperism, and infirmaries to diminish the carefulness of health and cleanliness in those classes for whose benefit they are intended, so sanitaria may ren-

der respectable that evil which they are created in order to check and to crush. We have often speculated whether, if drunkenness were elected into the place of a virtue and a merit, as it was in chivalric days, when the strength of a man's head, his courage, his noblesse, were measured by the strength and the depth of his potations, what had become obligatory as a duty would not be shunned and violated, as is the case with many other obligations equally agreeable, and enjoining far fewer pains and penalties. In America, the whole matter of intemperance is treated as a national question, and the hopes of its solution are evidently founded upon the corrective influences of Inebriate Asylums, when the officers of these have been vested with powers of detaining their charges legally, until old habits have been rooted up, new dispositions, purposes, and tastes have been established; until new physical changes have likewise been effected in the constitution; and until reasonable grounds arise for reposing confidence in the self-control of the individual. With the view to consolidate the independent and desultory efforts already made or now in progress, of gathering and diffusing information, and of acting upon the opinion of the public and Legislatures, an association has been formed, somewhat similar to that devoted to Social Science in Britain, consisting of physicians, philanthropists, and those engaged in the management of charitable or punitive institutions. Of this body, three volumes of annual transactions are now before us. Besides the bare record of formal proceedings, these contain thirty-eight articles of various scope and merit, ranging from "A brief Paper on the Pathological Influences of Alcohol, and the nature of Inebriation" over almost every aspect and collateral issue of the subject, to "Practical Points relating to the Criminality, Repression and

Cure of Drunkenness and Dipsomania," which are deserving of serious attention, especially in Britain, where we are at a stand still; where we are not only doing nothing and proposing to do nothing, but where, in some directions, we are positively doing wrong.

The less utopian of our friends in America seem disposed to limit their expectations of triumphing over diseased propensities, chiefly to what may be called curable cases, to recent cases, to cases in which there is a sincere desire and effort on the part of the patient to co-operate in the attempts made to effect his restoration. Should any measure be practically adopted in this country for the reclamation of dipsomaniacs, it might be prudent to confine the experiment in the first instance, at least, to these classes; for we can not but dread the contamination which may arise from the constant intercourse of depraved, confirmed, even of unstable drinkers with those who still retain a recuperative power.

It must be borne in mind, that, whatever may be proposed, we have to deal not merely with dram drinkers, but with those who seek excitement or oblivion by ether, eau de cologne, chloral, chlordyne, chloroform and opium, and that the effects upon the nervous system of each of these, differ somewhat from those of the others. Enormous quantities of the latter drug are imported into this country, much larger it is believed than what are required for medicinal purposes, and it is suspected, enter into the composition of many of the intoxicating beverages and cordials which are taken in comparative innocence and ignorance of their contents. In America it would appear that opium is largely consumed, and in certain of its forms is exposed for sale as a dram. "I know cases," says Dr. Parrish, "where persons are in the habit of purchasing a milder form of laudanum by the pint or quart, and using it instead of

alcoholic liquors" (p. 160, Minutes of Evidence.) Nor are we exempt from the responsibility of a similar practice. Dr. Lyon Playfair, in the same page of the same books, "puts the case of three druggists, in one street in Manchester, who weekly supplied six hundred families of the poorer classes with opiates." Opium is said to be a remedy for intemperance, or a means by which abstainers sustain their self-denial, but it may be fairly conjectured that the cure is worse than the disease, involves greater hazards, and demands more stringent arrangements for its prevention and removal.

We were pleasantly surprised, but somewhat startled, by the announcement contained in Miss Emily Faithful's lecture, in our Mechanics' Institute, about two months ago, that, during a sojourn of nearly a year in the United States, she had only seen three drunk persons. Certain dark and discouraging revelations casting a shadow over our memory, we concluded that Miss Faithful must have kept remarkably good company, and must have passed her time in a paradise of undistilled fruits and flowers, and of unfermented golden grain. These revelations are to be found in blue-books, but which from their gloomy contents should be called black; and in a large collection of reports, essays, &c., upon the subject of intemperance, abstinence, and inebriate asylums, which have been placed in our hands by a friend, a Dumfriesian, now resident in New York. It may be recollected that a Parliamentary committee, appointed under the auspices of the benevolent Mr. Dalrymple, M. P. for Bath, considered the wide subject of habitual drunkards, and their care and reformation, in 1872. From the inquiries of this body proceeded a vast mass of information, a report and a bill. The bill proved abortive, its author has since died, and there is at present little prospect that legislation will be revived on the subject.

In the minutes of evidence now referred to, Mr. Dalrymple, who occupied two months in investigating the provisions for the reclamation of the inebriate class in America, states in reply to the question "Has the greater stringency of the laws in force against intemperance there had the effect of diminishing drunkenness?" "If I may judge from the number of drunkards, I am afraid not." Two distinguished physicians who have devoted their energies to the care and cure of drunkards and dipsomaniaes in America, were invited to submit their experience upon the bearing and prospects of the whole question to the committee. One of these, Dr. Parrish, physician of the Sanatarium, Media, Philadelphia, deposes that: "I do not know that prohibitory laws have been enforced anywhere. * * * The measures resorted to for evading the law are very curious and very numerous, and it has always been a question with me whether demoralization of society in creating a disrespect for the laws and all sorts of manœuvres to evade it, is not almost as great an evil as the drinking of liquor." And in reply to the question "Is it your opinion, from the information you have received, that even if the prohibitory law is passed it is rather hurtful than useful to the cause of intemperance?" he said, "I think it is." He likewise quoted a letter from Mr. Otis Clapp, Boston Assessor of the United States, Fourth District of Massachusetts, and one of the Vice-Presidents of the American Association for the Cure of Inebriates, to the effect that: "It is no easy matter to state to you the effects of the prohibitory laws and the punishment of drunkards, because the whole question is a sort of muddle. The prohibitory laws were on the statute books many years, but as it was left to city officials to enforce them, they were *not* enforced, and we have nothing to settle in the matter of prohibition but

what is unsettled, and the consequence is that regular drinkers can purchase what they want. In the rural districts, at a distance from the cities, or large towns, it is generally difficult for drinkers to procure intoxicating liquors. But in the cities we have hundreds of poor men and women who keep no bars, but who retail spirits by the glass to customers whom they know, and never have on hand at one time more than one quart or gallon of spirits. They purchase as they need. Indeed, it is peddled from wagons like milk. In short, prohibition may have its advantages, but it is not here more than a partial success." (P. 155.)

From the same document we learn that in this country, where no restrictions are in operation or have yet been attempted as to the sale or consumption of stimulants, in 1870 there were 38,441 individuals proceeded against by the police as habitual drunkards; that in the same year 21,113 cases of intoxication came under the cognizance of the police in Liverpool; that Prisons, Reformatories, Workhouses, are constantly recruited from the inebriate classes, that 14 or 15 per cent. of the cases of insanity admitted into Public Asylums owe their origin directly to intemperance; and that in the opinion of the eminent psychologists or philanthropists who have contributed information to the committee, the morbid craving for stimulants is the most incurable form of mental disease. There must be added to this sad picture the less precise but equally trustworthy conviction, that indulgence, even excessive indulgence in alcohol, under various forms, is spreading widely, and sinking deeply, through the social customs of the inhabitants of the Continent; that beer, in larger quantities, is consumed by the Germans; that the juice of the grape has been substituted for the juice of the orange, among the Italian peasantry; that the

French have jilted their first loved sugar and water for brandy, and the more poisonous absinthe; that large numbers of the besieged Parisians, especially their military defenders, were in a state of drunken delirium during the bombardment, and that many of the horrors and absurdities of the Commune could be legitimately traced rather to the abundance of strong drink than to the want of food or the obscuration of reason. We have presented these observations not with the intention of pointing to a downward course, or of exposing the failure of the religious and moral means at our command in checking inebriety and dissoluteness, but for the purpose of introducing the question, what has been done, or what is proposed to be done, by men of British origin to mitigate the consequences of this evil, if all hope of eradicating it must be relinquished?

We know and appreciate the existence of national confederations, leagues of abstainers, Good Templars, of lecturers and literature, all contending against, and to a certain extent successfully contending against the ravages of intemperance; but we have never regarded the individuals engaged in this crusade as converts from the befoolment and befuddlement in which our race seems involved, but as sober members of the community, who, either from indifference to excitement or from self control, have resisted the tendencies and temptations by which they were surrounded, and would have remained abstemious, without the aid of pledges, processions, or the paraphernalia of the middle ages, presenting what may be regarded by some as a prudish, but what is certainly a healthy example in the midst of a lax or corrupt community. We know that the Church of England has spoken out nobly and loudly in the report of the Lower House of Convocation, as to what may be termed the social and domestic sources of

intemperance; that the Church of Rome, by the voice of her highest dignitaries, by sermons, by the formation of societies; and that perhaps all religious bodies have, after their own fashion, contributed to admonish and to warn as to the great and growing evil of our day. Even the doctors, or three hundred of them, have published a sort of penitential confession that unconsciously they may have initiated a love for stimulants, especially among the fairer portion of their patients, by giving tinctures and toddy, or pick-me-ups and champagne, when infusions or "plain cold water" would have answered the purpose. All this, as well as the improved usages of the affluent classes, is in the right direction, but affords no bulwark, no breakwater against the tide of degradation which seems to be gaining upon us. Moralists, like medical men, are groping blind-folded after the means by which contagion may be prevented, and, in despair of success, are compelled to rest content with the suggestion of remedies, ameliorations, after the disease has been actually established, or during periods of temporary convalescence.

The treatment proposed in this country, as we learn from the Minutes of Evidence before alluded to, and from other sources, is that, having assumed an individual who has been found intoxicated three times within a given period to be an habitual drunkard, instead of decapitating him, as Charlemagne used to do at this stage, or fining and imprisoning for a brief space, as is the prevalent custom, a magistrate or sheriff, as the case may be, shall be empowered to consign the offender for long periods, never less than a year, to a reformatory or penitentiary connected with an asylum, a prison or a workhouse, or existing independently of all these. These depots are to be so situate and constructed that the inmates shall not be brought into contact with luna-

ties, criminals or paupers; shall be placed under medical and moral management; shall be taught or employed in various trades and occupations; shall receive for themselves or their families, such proceeds of their labor as shall remain after their maintenance and supervision have been provided for; that they should be regularly visited and examined by public officials, and shall be discharged according to certain forms when they are believed to be recovered,—in other words, when they have outlived the effects of former indulgence, the tyranny of former habits and temptations, when not only a new spirit, but a new or repaired physical organization have been created within them, and when they are supposed to be capable of safely and usefully resuming their former position and profession. The weight of authority and experience seems to be in favor of the proposition, that these reformatories should be altogether separated from and independent of other institutions, that for the indigent, they should be erected and maintained partly by local, and partly by national taxes, that for the affluent, their creation should be left to private enterprise; but that, under every circumstance, they should be licensed, regulated, inspected, according to a special act. It is almost needless to remark that this project is an outcome of the pernicious practice of placing drunkards in asylums, in those improvised, unrecognized, and we suspect very inefficient retreats scattered over the country, in islands, remote corners and secluded spots, and superintended by self-constituted guardians of every grade, from the priest and physician, to the butcher and bricklayer; or, in that extraordinary hospital of all the moral ills and infirmities which flesh is heir to, Queensberry House. A curative home is the central idea of all the recommendations before us, but from this there radiate innu-

merable plans which may be regarded either as natural sequences or absurd excrescences. It has been mooted that the Danish mode of treating military drunkards, or the surfeiting the culprit with whisky while in prison, the deprivation of all other nourishment, society, occupation, &c., should be incorporated with, or should precede moral training. It has been gravely argued that the reformatory should be a village, that honor, truthfulness and confidence in which inebriates are notoriously deficient, should take the place of bolts, bars, restraint and captivity, and that, for stern warders or attendants, should be substituted, enlightened companions and moral guides. Another cure is to be sought for in the spread of education, especially an instruction in physiology and in pointing out to the toper and tippler, not simply that he is doing wrong, but that he is burning up his vitals by a slow but sure process of spontaneous combustion. When all this chaff had been blown away by the wind of public discussion, there remained but two sound grains which promised to germinate and give some return, prolonged abstinence and dentention. America, either borrowing from the example of our private speculations, or pressed by its own necessities, by inoperative and evaded permissive and optional bills, and by the prevalence of drunkenness has anticipated the course suggested by the report, and has already instituted several homes or hospitals for inebriates, and encouraged by the supposed success of this arrangement is clamorous for its extension.

BIBLIOGRAPHICAL.

REPORTS OF AMERICAN ASYLUMS, 1873.

NEW HAMPSHIRE. *Report of the New Hampshire Asylum for the Insane*: 1873. Dr. J. P. BANCROFT.

There were in the Asylum, at date of last report, 276 patients. Admitted since, 140. Total, 416. Discharged recovered, 42. Improved, 44. Unimproved, 27. Died, 22. Total, 135. Remaining under treatment, 281.

The Trustees of the Asylum seem to be fully awake to the demands of the times, to place this Institution among the most favored of the country. In one important respect, it already occupies this position. It has now at command, the income from \$250,000, securely and profitably invested. This is expended in aiding proper cases of indigence, and by meeting a part of the expense incurred by the poorer class of paying patients. Many are thus kept from dependence upon public charity, and are encouraged to do all that is possible toward self maintenance.

Some thirty acres of ground have been prepared for the out of door recreation of the patients. A call has been made upon the State Legislature for an appropriation to enlarge the accommodation for male patients of the disturbed class. At present, this department is largely overcrowded, and many whose condition demands the advantages of single rooms, are forced by the lack of such, to occupy associate dormitories. The testimony of Dr. Bancroft is fully and forcibly given, against the dormitory system, he says:

The truth, simply told, is, that the introduction of this feature in building for the insane, to any extent beyond a few double rooms, was a radical mistake, and not adapted, at least, to the wants of this locality. It is a foreign idea, wholly in the interest of cheapening, and antagonistic to comfort, safety and recovery. I have never seen a patient, not an imbecile, who did not dislike this manner of lodging. The plan proposed to you last year, while effecting the many other desirable ends then set forth, will effectually remedy this great evil. It would add twenty-seven new rooms, bringing the number up to one hundred and thirty. With some inexpensive alterations afterwards, in the dormitories, the privileges of the men would be made, in this respect, fully equal to those of the women.

The decrease in the number of elopements, and in the general restlessness of patients, is attributed to the steady increase of mental occupation afforded them. This includes all objects of interest presented to the mind, whether in the form of physical labor, reading, entertainment, &c. This branch of treatment has been sustained with an increasing constancy and energy, and with the most encouraging result.

VERMONT. *Biennial Report of the Vermont Asylum for the Insane for 1873-74.* Dr. JOSEPH DRAPER.

There were in the Asylum, at date of last report, 495 patients. Admitted since, 204. Total, 699. Discharged recovered, 48. Improved, 87. Unimproved, 37. Died, 56. Total, 228. Remaining under treatment, 471.

On the 30th of November, 1873, Dr. Rockwell, who for thirty-six years had been the Superintendent of the Institution, died. He was succeeded temporarily by his son, Dr. Rockwell, Jr., and subsequently by Dr. Draper, who makes the present report.

During the past biennial period, extensive changes and improvements have been made, and others are contemplated. The old basement rooms have been aban-

doned, and twenty-six additional rooms, making eighty-seven in all, have been provided in the new structure. The method of heating by hot air furnaces is to be discontinued, and steam heating and forced ventilation to be substituted.

So far as the means of the Institution have allowed, attention has been paid to embellishment. Pictures adorn the walls of every ward. A piano has been provided for the ladies parlor, an organ for the chapel, and cottage organs upon several wards. The surroundings of the establishment have not been neglected. A secluded and beautifully ornamented walk, of nearly a mile in length, surrounding the terrace of some twenty acres, on which the buildings stand, furnishes to patients the opportunity for exercise and amusement. The flower gardens and hedges, which are the growth of years, decorate and protect the grounds from intrusion, and render the landscape view one of great beauty and interest.

Dr. Draper gives an account of the organization of the Asylum, its ownership, relation to the State, appropriations, legislation in reference to the insane, legacies, public supervision, and other points which serve to enlighten the people in regard to the Institution, and the somewhat anomalous position it occupies toward the State. The result should be to promote confidence in its management, and thankfulness to its original founders, and to the former Superintendent, Dr. Rockwell, who, by his successful labor has built up from such small beginnings, and with so little aid from the State, an Institution of the size and importance, in the charitable designs of an advanced civilization, of the Vermont Asylum for the Insane.

CONNECTICUT. *Fiftieth Annual Report of the Retreat for the Insane: 1873-74.*

There were in the Retreat, at date of last report, 148 patients. Admitted since, 83. Total, 231. Discharged recovered, 31. Improved, 41. Unimproved, 27. Died, 11. Total, 110. Remaining under treatment, 121.

This report is made by Drs. Hunt and Russell, who conducted the Institution during the interval between the resignation of Dr. Denny, and the return of Dr. Stearns, the newly appointed Superintendent, from Europe. Under his management we hope for a continuance of the former prestige and usefulness of the Retreat.

NEW YORK. *Annual Report of the Kings County Asylum: 1874.*

Dr. CARLOS F. MACDONALD.

There were in the Asylum, at date of last report, 718 patients. Admitted since, 338. Total, 1,056. Discharged recovered, 114. Improved, 78. Unimproved, 39. Died, 74. Total, 305. Remaining under treatment, 751.

He speaks of overcrowding the Institution, the conversion of day rooms and parlors into sleeping apartments, and of putting 30 to 35 patients into wards assigned for 25 by placing two patients in a single room.

PENNSYLVANIA. *Annual Report of the State Lunatic Hospital of Pennsylvania: 1874.* Dr. JOHN CURWEN.

The were in the Asylum, at date of last report, 408 patients. Admitted since, 149. Total, 557. Discharged recovered, 41. Improved, 31. Unimproved, 77. Died, 28. Total, 177. Remaining under treatment, 380

PENNSYLVANIA. *Annual Report of the Commissioners of the State Hospital for the Insane at Warren.*

The report of the Commissioners is made to the Secretary of the Board of Public Charities of the State. It details their action in the selection of a site, describing its location and advantages, gives a description of the building as furnished by the architect, the particulars of the work so far accomplished, and an account of the laying of the corner-stone, with the addresses made upon that occasion.

The Institution is to consist of a large central building, and six continuous wings, which may be subdivided into three lateral and three transverse wings upon each side of the main central building. The plan was drawn in strict accordance with the propositions of the Association of Superintendents. It is intended to embody all of the most advanced ideas in hospital construction, and to adopt the most improved methods of heating and ventilation. We reserve any more minute description till after the erection of the buildings.

NORTH CAROLINA. *Report of the Insane Asylum of North Carolina: 1874.* Dr. EUGENE GRISSOM.

There were in the Asylum, at date of last report, 242 patients Admitted since, 29. Total, 286. Discharged recovered, 13. Improved, 8. Unimproved, 2. Died, 16. Total, 39. Remaining under treatment, 247.

Dr. Grissom has written an admirable report. In it, he makes a strong plea for increased accommodation for the insane of the State of North Carolina. This is based upon what has been done in other States; upon the demands of an increasingly large number of insane still unprovided for; upon the duty of the public, on the ground of humanity and right; and upon the

economy of placing acute, and therefore probably curable cases under treatment, and avoiding the expense of their care and support during their tenure of life.

He discusses various schemes and projects for increasing the accommodations for patients, opposes the establishment of chronic receptacles, and finally proposes a plan for enlarging the capacity of the present State Hospital.

GEORGIA. *Report of the Lunatic Asylum of the State of Georgia:*
1873. Dr. THOMAS F. GREEN.

There were in the Asylum, at date of last report, 509 patients. Admitted since, 177. Total, 686. Discharged recovered, 31. Improved, 15. Unimproved, 5. Eloped, 12. Died, 47. Remaining under treatment, 576.

The whole number of patients is divided as follows, Lunatics, 433, Idiots, 76, Epileptics, 67.

This condition of the Institution, furnishes the Doctor the text for his report. He speaks of the difficulty of the situation, in the utter impossibility of carrying out any correct system of classification, and of the great injustice to the insane, both in the Institution and out of it, in having the room thus occupied by such a large proportion of the hopeless and helpless classes of epileptics and idiots. He urges the establishment of separate institutions for their care and treatment.

There is nothing connected with the affairs of this world, that I more ardently desire to live to see. But then it must cost a considerable outlay, and few persons can understand and appreciate the positive necessity for all this; and it will, I fear, yet be said, as heretofore, you must wait; gradual improvement has taken place, and will doubtless continue until, in process of time, the great desideratum is reached. But I certainly hope that there will be no delay that can possibly be avoided in providing the means of erecting a separate institution for the care and training of idiots.

This must be done, or this Institution, in some way, be relieved from the charge of them, or they will occupy it almost entirely. We now have seventy-six in the asylum, operating to the exclusion, of course, of an equal number of insane persons, very many of whom in recent cases, would be restored; and others, whom the safety of families or communities absolutely requires should be confined somewhere, and surely better and more humanely in the asylum, without personal restraints, than in chains and hand-cuffs in the cells of the county prisons.

The law of the State, makes no provision for the discharge of any patients, unless under certificate that they are of sound mind. The operation of this statute is to keep in the Asylum a large number of the harmless chronic insane, many of whom are in good general health, and capable of performing such labor as would support them outside. A form of law, that will remedy this defect, will be laid before the Board, and if approved by them, submitted to the Legislature.

If encouragement could be given to friends, to assume the charge of such patients, and others were sent to the County Institutions and placed among the ordinary poor, as is done in other States, positive good might result both to the Asylum and to the patients. We hope the Doctor may live to see his most ardent wish fully realized, in the establishment of institutions for the care of the epileptics and idiots, and in the passage of such legislation as will promote the best interests of the Asylum, and its unfortunate inmates, to whose comfort and welfare he has devoted so many years of his life.

TEXAS. *Report of the Lunatic Asylum of the State of Texas:*
1874. Dr. D. R. WALLACE.

There were in the Asylum, February 10, 1874, 115 patients. Admitted since, 54. Total, 169. Discharged recovered, 21. Improved, 9. Unimproved, 5. Died, 7. Total, 42. Remaining under treatment, 127.

Dr. Wallace assumed charge of the Asylum in February 1874, and has made his report for the remainder of the fiscal year. The prospect was indeed discouraging. Nine-tenths of all the patients in the Institution were chronic cases of insanity, epileptics or imbeciles. Applications for the admission of acute cases were pressing. To afford relief, a request was immediately made for the removal of such as could be cared for outside the Asylum. This in part, accomplished the end designed. Arrangements were made for enlarging the capacity of the Institution, and an addition to the present structure was at once begun. In these changes and improvements, Dr. Wallace gives evidence of earnestness of purpose to advance the interest of the insane. In his whole report, in which he discusses the fundamental questions relating to the care of the insane, and the principles which should govern in the erection of asylums, the Doctor exhibits a knowledge of the whole subject, acquired only by study and close observation. From present progress we have the prestige of future advance, which we hope may eventuate in placing Texas among the most fortunate of the States, as regards the care of the insane.

KANSAS. *Ninth Annual Report of the Asylum for the Insane of the State of Kansas: 1873.* Dr. A. H. KNAPP.

There were in the Asylum, at date of last report, 97 patients. Admitted since, 72. Total, 169. Discharged recovered, 27. Improved, 11. Unimproved, 4. Died, 4. Eloped, 2. Total, 48. Remaining under treatment, 121.

The report of the condition of this Asylum is not creditable to the good judgment of the inhabitants of the State of Kansas. Year after year the urgent appeal for a water supply and efficient drainage are neglected, though both can be readily and cheaply

obtained. Water is hauled to the Asylum for all its various needs, at a cost of more than \$1,000 annually, when less than \$3,000, we are told, in the report, would furnish an abundant amount from a neighboring stream, which also offers a ready means for complete and thorough sewerage of the Institution.

Dr. Knapp enters upon his duties, apparently with an appreciation of its various necessities, and an earnest desire to advance the best interests of the patients under his charge, but is met at the outset by great discouragements. The applications for admission are numerous and pressing, and the buildings are already so overcrowded with patients, that proper classification is rendered impossible, and the unhappy inmates, but jostle and irritate each other, while the necessary appliances for their care are so defective that the supply of properly cooked and prepared food, even is questionable. Such disadvantages are certain to result injuriously, and to largely diminish the number of recoveries, and to this extent, render the Institution a failure. What is worth doing at all is worth doing well, and true economy would dictate a free appropriation to meet the necessities of this unfortunate class, even though the State be poor, and is burdened by taxation. Judicious expenditures for its charities will not pauperize its citizens.

OREGON. *Biennial Report of the Oregon Hospital for Insane:*
1873-74. Dr. J. C. HAWTHORNE.

There were in the Asylum, at date of last report, 167 patients. Admitted since, 128. Total, 295. Discharged recovered, 57. Improved, 10. Died, 33. Total, 100. Remaining under treatment, 195.

Dr. Hawthorne's report is occupied almost exclusively with facts and data relating to the cost of erecting asylums for the insane, and of maintenance therein.

ONTARIO. *Report of the Rockwood Lunatic Asylum:* 1873.
Dr. JOHN R. DICKSON.

There were in the Asylum, at date of last report, 306 patients. Admitted since, 63. Total, 429. Discharged recovered, 25. Died, 8. Eloped, 1. Total, 34. Remaining under treatment, 395.

The Doctor again refers to the subject of separating the criminal from the non-criminal classes. He urges this not upon any theoretical grounds, but from a firm conviction, derived from the personal observation of eleven years spent as surgeon of the penitentiary, which have afforded ample opportunity of studying criminal character.

REPORTS OF FOREIGN ASYLUMS.

Report of the Royal Lunatic Asylum of Montrose, for the years 1870-1874. JAMES C. HOWDEN, M. D.

Seventy-Eighth Report of the Friends Retreat, near York: 1874. J. KITCHING, M. D.

Annual Report of the Warneford Asylum: 1873. J. BYWATER WARD, M. D.

Annual Report of the Broadmoor Criminal Lunatic Asylum: 1873. W. ORANGE.

Eleventh Annual Report of the Argyll and Bute District, Lunatic Asylum: 1874. JAMES RUTHERFORD, M. D.

Forty-Fourth Report of the Belfast District Hospital for the Insane: 1873. ROBERT STEWART, M. D.

Sixtieth Annual Report of the Glasgow Royal Asylum for Lunatics: 1873. ALEXANDER MCINTOSH, M. D.

The Second Annual Report of the Hereford City and County Lunatic Asylum: 1873. T. A. CHAPMAN, M. D.

Thirty-Fourth Annual Report of the Crichton Royal Institution and Southern Counties, for the year 1873. JAMES GILCHRIST, Esq., M. D.

Report of the Hospital for the Insane, Gladesville, New South Wales: 1873. F. NORTON MANNING, M. D.

BOOK NOTICES, PAMPHLETS RECEIVED, &c.

Clinical Lectures on Diseases of the Nervous System. WILLIAM A. HAMMOND, M. D., Professor of Diseases of the Mind and Nervous System, in the University of the City of New York. President of the New York Neurological Society, etc., etc., etc. Reported and edited, by T. M. B. CROSS, M. D., Assistant to the Chair of Diseases of the Mind and Nervous System, of the University of the City of New York, etc., etc., etc. New York : D. APPLETON & Co., 1874.

The editor states, that he has endeavored to present a full report of the lectures, together with the history of the cases, and that while he does not claim the work to be exhaustive, or to embrace all the diseases of the nervous system, that it will be found to contain many of the most important affections of the kind, usually met with in practice; that they are intended principally for students, and his aim has been to present merely practical views, fully illustrated by cases, with the results derived from treatment; that he has not entered into the pathology or morbid anatomy, but has confined himself to a full consideration of the symptoms, the causes and treatment of each affection, especially in regard to the cases related.

There are forty-four lectures, which treat of partial cerebral anæmia, the result of thrombosis and embolism, of the different forms of paralysis, of cerebral haemorrhages, congestion, inflammation and sclerosis of the spine, epilepsy, neuralgia, chorea, aphasia, meningitis and other allied affections of the brain and spinal cord.

We have looked over the work, and find in it many things of interest, and many views which are in accord with the present state of medical knowledge. There are, however, some which we can neither commend nor accept. These lectures contain the latest views of the author, upon the subjects treated of, but as these are subject to change the following caution has been aptly

given. In speaking of the causes of chorea, and the supposition, until recently entertained of its intimate connection with rheumatism, (as he asserts,) he says : "If I mistake not, I gave you that as my own opinion last year, but, as I have before warned you, I often find occasion to change my views, and if you come to these lectures, you must not expect always to hear the same things." The book is in good type, and presented in Appletons usual good style.

Tinnitus Aurium, or Noises in the Ear. By LAWRENCE TURNBULL, M. D. (Reprinted from the *Philadelphia Medical Times*.)

In this article, Dr. Turnbull treats of the diagnosis, causes, pathology and treatment of tinnitus aurium. He speaks of its frequency in cases of insanity, but concludes, that though it often exists, especially in cases of hallucination, it can not be assigned as an efficient cause of insanity.

This view is sustained by the recorded testimony of several well known alienists, of large experience in this country and abroad. He gives the result of an examination in the Blackwell's Island Lunatic Asylum, by Dr. A. D. Pomeroy, of sixty patients, thirty of whom had hallucination of hearing, and thirty had none. The result of the examination, showed a slight excess of cases of hallucination connected with disease of the ear, but the disease did not, in a single instance, develop or excite insanity. "This confirms our own examinations and correspondence, and gives a more hopeful and proper view, of even the worst form of this affection." He recommends this subject to the attention of physicians to the insane.

It is certainly well worthy the consideration of all, especially since this troublesome disorder is so frequently easily diagnosticated, and the cause removed. It often depends upon inspissated cerumen, adherent to

the membrana tympani, upon the growth of hair in the auditory canal, or the presence of foreign bodies, or fungous growths. Other causes may produce it, as diseases of the internal ear, of the brain, or changes of circulation within the brain, especially those connected with an anæmic condition. These views of Dr. Turnbull regarding tinnitus, as not being a cause of insanity, is in accord with our own experience and observation.

Insanity, a Cursory View for the General Practitioner. By C. H. HUGHES, M. D. (Reprinted from the *St. Louis Medical and Surgical Journal*.)

Dr. Hughes apologizes for this article, by saying, that it was written to redeem a rash promise. This apology was undoubtedly called forth by the difficulties inseparably connected with trying to condense in a satisfactory manner, a subject of such scope and importance, within the limits of a single lecture.

The Doctor has, however, succeeded in making his article interesting, and one that will be of benefit to the practitioner of general medicine. He goes briefly over the ground, touching upon mental manifestations, causation, classification, pathology and treatment of insanity. Upon these points, he gives the conclusions which have been reached, and makes a fair resumé of the present state of psychological science.

Clinical Contributions—Three Cases of Induration of the Os and Cervix Uteri, the Result of Syphilis. Two Cases of Syphilitic Insanity. Four Cases of Anomalous Localities of Chancres, Extra Genital—with remarks. M. H. HENRY, M. D., Surgeon-in-Chief of the State Emigrant Hospital, &c., &c. (Reprinted from the *American Journal of Syphilography and Dermatology*—October, 1874.)

The two cases of syphilitic insanity, with the comments of Dr. Henry, we reproduce entire, as they are of interest to the readers of the JOURNAL.

Syphilitic insanity is beyond question a rare disease, and any addition to the literature of this subject deserves, I think, the attention of the profession. I present here two cases, believing them to be of sufficient interest to warrant publication. •

CASE I.—Elise G. C., aged 29, native of France, a servant by occupation. She has been in the United States since the spring of 1873. After remaining in the city for a time she was sent to and came under my observation at the State Emigrant Hospital, and I treated her for syphilis. Early in January, of this year, she manifested slight symptoms of insanity, which gradually grew worse, and in February she was transferred to the Emigrant Lunatic Asylum. By this time she was suffering from profound dementia, with epileptiform convulsions. She had no appreciation of her condition or anything about her. She soon became careless in her personal habits, and neglected the wants of nature, at times crying for hours at a time, and asking to be fed. All the natural lines seemed to be erased from her face—she was literally expressionless. Her physical condition was fair, her limbs were covered with secondary syphilitic sores, and several small, gummy tumors were on the head. After a few weeks she began to complain of great pain in her head, and evinced more mental activity. She soon became ugly and irritable, and at times would strike the patients. Her appetite improved after taking tonics. The treatment consisted chiefly of iodide of potassium and bark. At present writing patient remains a well-marked case of chronic dementia.

CASE II.—Maria B., aged 39, single, born in Germany, and a servant by occupation. This patient was transferred from the hospital to the Emigrant Lunatic Asylum, May 5, 1874, and suffering from syphilis, with frenzied melancholia. She had been treated in the venereal wards of the hospital for about four weeks previous to the setting in of insanity. On admission, was noisy, restless and suspicious, said people were trying to kill her, that people came into her room at night, that she saw snakes, and that she was the worst living woman; wanted to kill herself; was restless; slept with great irregularity, and only after taking chloral and hyoscyamus in full doses. This condition continued for some days, when she became more quiet. Continued to take large doses of hypnotics with tonics and iodide of potassium daily. At present time is fearfully depressed, and is a typical case of melancholia. Her physical health has improved, and she takes sufficient food and sleeps well.

REMARKS.—Syphilitic insanity is, as we have already said, a rare disease, probably not more than one per cent. of all cases of insanity presenting this complication, and this too, in asylums where the patients come from a class of society in whom this disease is met with most frequently. Of 1,097 patients admitted during seven years into the Rheinau Asylum, near Zurich (501 men and 596 women,) syphilis was given as a cause for sixteen men and twelve women, being $2\frac{1}{2}$ per cent. of the whole.

According to the latest researches, syphilitic insanity presents itself under two forms, congenital weakness of mind and acquired insanity. The form most frequent is dementia. In addition to syphilitic pains in the head, we frequently find, according to authorities, lesions of the motor or sensorial centers, the character of the former being similar to general paralysis, while the latter is sometimes manifested by sudden loss of sight.

Syphilitic insanity may be manifested almost immediately after infection, or be preceded by cerebral attack, either epileptic or apoplectic in character, with dementia supervening. According to Wille, we may find three forms of syphilitic insanity.

1. A simple irritation due to anæmia.

2. A form of insanity, marked by general mental disorder due to meningitis and softening; and

3. A form distinguished by psychical disturbance, due to circumscribed inflammatory softening, atheroma of vessels, and gummy neoplasma of the brain and meninges. The destructive effects of syphilis may involve the cranium, dura mater, and possibly even portions of the brain itself, without causing mental disease.

In the treatment of syphilitic insanity, the same general principles must be followed as indicated in the management of other forms of syphilis—taking into consideration, at all times, the special demands of individual cases, and the peculiar characteristics and special complications that may arise in different individuals. If the so-called secondary manifestations exist, with pains of the bones, muscles and periosteum, or affections of the skin, or mucous membranes, mercury will be serviceable. If the symptoms are of the so-called tertiary period, with cachexia, caries or necrosis of bones, rupia, etc., the preparations of iodine are indicated, or the administration of mercury and the iodide of potassium combined. The latter combination will often yield admirable results. My own experience confirms all that has been said in favor of the use of the carbonate of ammonia in combination with the iodide of potassium. I think too much stress can not be laid

on the necessity of giving the preparations of iodine only in large draughts of water.

A generous diet, and the use of tonics, will add materially to the results. Strict hygienic care is, of course, essential under all circumstances.

The Legal Relations of Emotional Insanity: E. LLOYD HOWARD, M. D.

(Extracted from the Transactions of the American Medical Association.)

The writer introduces his article as follows: "The plea of insanity is now so commonly urged in criminal trials, and in several late noted cases has been so successfully used to defeat justice, that it becomes necessary for the protection of society to consider the proper means for checking so great and growing an evil. * * * Again, he says, "*Impulsive insanity* is said to exist, 'where the crime itself is held *to be evidence* of the insanity, and is accounted for upon the theory that the person is suddenly and insanely impelled to commit it.' " Though some medical writers refuse to admit the correctness of the definitions given, and even deny the proper existence of these forms of insanity, the denial, it seems to us, is based rather upon technical, than practical grounds." It is an interesting question, how much such views, as are here enunciated, will accomplish toward abating the evil complained of. After speaking of the different tests of insanity, which have been proposed, Dr. Howard says, "it being impossible to define insanity by any "test symptoms," each case should be examined by the jury *in itself*, and they must be left free to judge of the value of *all* facts in connection with it." He goes still further with the theory, and recommends the repeal of all laws, both statute and ordained by custom, and the ruling of courts which exempt insane offenders from punishment. He would leave the jury to determine the guilt or innocence of

the person, *not* upon the grounds of insanity, but from *all the facts*. The result of a judicial decision upon such data would be, we fear, that many, who were really irresponsible from disease, and whose punishment would be an outrage upon justice, would suffer, and many a criminal, would escape the just punishment of his crime.

Theories can be made to look well and sound well, when read from the printed page, which in practice would but subvert and thwart the ends of law and justice, and this seems to be one of them.

There is one statement, which we can but think, however, is a figure of rhetoric, that will amuse our readers, "confinement in a penitentiary is not a more severe punishment, in reality, than in the cells of a mad house." * * * * *

That is an assertion we would call to the attention of those philanthropists, who are continually striving to effect the removal of insane criminals from the prisons, to the asylums of our land.

We venture to say, that a greater actual experience, if he has had any, may lead him to revise his judgment and improve his logic.

Of Deaf-Mutism and the Method of Educating the Deaf and Dumb. By LAWRENCE TURNBULL, M. D. (Extracted from the Transactions of the Medical Society of the State of Pennsylvania.)

Stricture of the Male Urethra, with Report of Twenty-seven Cases. Annual Address before the Medical Society, of the County of Albany, 1873. By A. VANDERVEER, M. D., President.

Transactions of the Medical Society of the District of Columbia. October, 1874. Vol. I., No. III.

The Relations of the National and State Governments, to Advanced Education. By ANDREW D. WHITE. Read before the National Educational Association, at Detroit, August, 1874.

Cases of Hysteria, Neurasthenia, Spinal Irritation and Allied Affections, with Remarks. By GEORGE M. BEARD, M. D. (From the *Chicago Journal of Nervous and Mental Disease*.)

The Doctor gives several cases of the diseases named in the heading, with the treatment. It is the same that has been employed in this Institution for a long time—the use of cod oil emulsion as a general tonic, of electricity, the ice or hot water bath, with slight counter-irritation in cases of spinal irritation, and where there are points of tenderness along the vertebræ, or over the neuralgic points described by Valleix. We have also derived benefit from the application of belladonna or aconite plaster, or from one made by sprinkling powdered opium and camphor over a heated strip of the ordinary adhesive plaster. We can see no benefit, but only evil in elevating to the dignity of a form of disease, some special symptom, as *astraphobia*, or fear of lightning, or *agoraphobia*, or fear of places, even though they may be sanctioned by such authority as Westphal. It is only a repetition of the trouble that has been experienced in the multiplication of forms in that highest type of nervous disease, insanity.

The Treatment of Marasmus, Whooping Cough, and Debility in Children. By GEORGE M. BEARD, M. D. (Reprinted from the *Detroit Review of Medicine and Pharmacy*, October, 1874.)

Longevity of Brain Workers. By GEORGE M. BEARD.

Epiphyseal Fracture of the Superior Extremity of the Humerus. By E. M. MOORE, M. D., of Rochester. (Extracted from Transactions of the American Medical Association.)

Report of the Committee on Idiocy, made to the Illinois State Medical Society, at their Annual Meeting. Held in Chicago, May, 1874. By C. T. WILBUR, M. D., Superintendent of the Illinois Institution for the Education of Feeble-Minded Children.

SUMMARY.

John P. Gray, M. D., LL. D., Superintendent of the New York State Lunatic Asylum, and Editor-in-Chief of this JOURNAL, has received an invitation to deliver a course of lectures, on the subject of Insanity, at the Bellevue Hospital Medical College. They will be given during the months of January and February.

—The Legislature, of Vermont, at its recent session, elected Dr. H. H. Atwater, Commissioner in Lunacy for that State.

INSANE ASYLUM AT MORRISTOWN, N. Y.—The “Commissioners appointed to select a site, and build an Asylum for the insane of the State of New Jersey,” began work somewhat more than a year ago, by the choice of a site, and the purchase of a farm of 408 acres, located about three miles from Morristown. The location seems to be all that could be desired in geographical position, accessibility, fertility of soil, and healthfulness. It contains the advantages of an unlimited water supply, quarries from which the necessary stone can be obtained, and also clay beds which will produce all the brick used in the building.

The building differs somewhat in the detail of the plan, from any previously erected. The general ground plan is the usual linear one, but in the superstructure, advantage is taken of the most recent improvements. The whole length of the building is 1,243 feet, and the depth, retreating from the front of the center, to the rear of the extreme wings, is 542 feet. The wings on the right and left of the center, are three stories in height, except the most remote, which are of two stories and have rooms upon one side only of the ward.

The building is now about two-thirds completed, and \$1,300,000 have been expended. It is calculated that at least \$1,000,000, more will be required to complete it as designed. On Friday, the twentieth of November last, the part of the building already completed, was thrown open to the public. The commissioners had invited a large number of distinguished guests, and about 500 were assembled.

After inspecting the premises, the party was conducted to the chapel, where a collation had been provided, after partaking of which, the audience was addressed by Gov. Parker, who expressed his sympathy with the humane work, and confidence in the way the commissioners had performed their allotted task. Senator Frelinghuysen followed with some appropriate remarks. The exercises were continued by the commissioners and others, and much enthusiasm and good will manifested toward the Institution and the cause. We are not informed when it will be opened for the reception of patients, but the needs of the State will not permit the time to be unnecessarily delayed.

THE CHICAGO JOURNAL OF NERVOUS AND MENTAL DISEASE.—The Journal has completed its first volume and has retained the high character which marked the first number, and which has made it of value and interest to the profession. The original articles have shown the results of study and observation, and have brought to notice, subjects rarely treated of in general medical literature. Its extracts are well selected from foreign journals, upon the special subject of mental and nervous disease. We welcome it to the field of journalism, and hope that the encouragement received has fully met all the anticipations of the editors.

—THE ARCHIVES OF DERMATOLOGY edited by Dr. L. D. Bulkley, has been received. It is a quarterly, of

one-hundred pages, is printed on tinted paper, and presents a neat appearance. The subject of dermatology is receiving considerable attention, especially from the younger members of the profession in America. Their attendance upon the clinics and lectures of the specialty, in the European capitals, under Hebra and others, is a subject of frequent comment, and augurs well for the future. Such a means of communication between those who are devoting themselves to the subject of dermatology, will be a great benefit to them and to the profession at large.

TURKISH BATHS.—We quote the following statement from the report of Sir James Coxe, Commissioner in Lunacy for England, in the report of the Argyll and Bute District Lunatic Asylum, for 1874.

“Difficulties in the way of procuring the necessary supply of bread has led to the conversion of the Turkish bath, which was not looked upon as of any use, into a bake-house, and for the last three weeks all the bread used has been baked on the premises.”

GENERAL PARALYSIS OF THE INSANE.—My second case, to which I wish shortly to draw attention, is of an altogether different character. It is an example of a disease only too well known in asylums—general paralysis of the insane; and its interesting feature is the extraordinary duration of the malady. The average duration of the disease is about thirteen months. In the late Dr. Skae’s paper on the subject, he says, “I have known one or two cases of five years’ duration; two above nine; and, including those cases where the paralysis had preceded the mental derangement for some time, I have known cases where the disease had extended beyond fifteen years. Dr. Austin mentions one of sixteen years.” Bucknill and Tuke say the “patients rarely live more than two or three years after the development of well-marked symptoms;” but they mention two cases in the Naval Hospital at Yarmouth, one of which has labored under general paralysis for eight years, and the other for six years. “Out of 271 cases admitted into the Devon Asylum, only seven lived more than four years after admission.” Dr. Ernest Salomon, (*Journal of Mental*

Science, October, 1862,) says, "the course of the disease may extend from some months to three years. In rarer cases it may reach to five years, but scarcely ever exceeds that time."

Without quoting more authorities, enough has been said to show that it is very rare to find a case of general paralysis last over a very few years. The case to which I wish to draw attention, was admitted into the Royal Edinburgh Asylum, in May, 1860, and has consequently lasted for over fourteen years. It was on admission, entered as a case of general paralysis; the symptoms leading to this diagnosis, which the subsequent course of the disease has shown to be perfectly correct, being apparently inequality of the pupils, unsteadiness of gait, and indistinctness of speech. The mental characteristics were chiefly considerable melancholia, with stupor. He continued unchanged for about a year, when, for some reason which the case-book does not state, he was discharged, not improved. He was re-admitted in January, 1863, having done no good since his discharge. On admission, he was silent and stupid, with a heavy look, and the indications of general paralysis mentioned above. He would not walk about or employ himself in any way. In three months, however, he took to walking round the grounds and in the airing-court, and said he was quite well and happy. He articulated with the greatest difficulty, and was almost unintelligible. In other three months, another change is noted, and he commenced to have the characteristic delusions of grandeur. He had the most glorious ideas of his riches, strength, might, beauty, etc.; was forty feet high, was God, was married to the Queen, was the strongest man in the world, and had "a damnable heap o' money." In other three months he was much more subdued in mind and weak in body, but happy and good-humored. A little after this, he had a series of epileptiform seizures, which were ushered in by a regular congestive attack. He became very weak, could hardly swallow, speak, or make his water, and his bowels were very constipated. Two months after this, however, having gradually rallied, he was walking about as usual, and very happy and contented. The next entry in the case-book regarding him, is perhaps somewhat wanting in minute detail, but what there is of it is extremely graphic. "1864, 15th March.—No change. Is a magnificent specimen of a general paralytic." On 15th June, of the same year, had a bad congestive attack, followed by epileptiform fits. He gradually got better, but was troublesome and restless. His difficulty of articulation continued very noticeable. On 15th December, is entered as gradually failing. On 20th January, 1865, had another congestive attack, and on 15th March,

was too frail to be up. Had another bad congestive attack. In a few months he had again rallied wonderfully, and was able to walk about the airing-court, but he now manifested very destructive tendencies regarding plants and other objects. For three years after this, he continued to improve; had no congestive attacks, gained flesh, and was much less demented than before. He got so quiet and manageable, and so apparently well, that he was tried in the lunatic wards of the Leith Poorhouse. He had not been long there, however, till he became violent and dangerous, and tried to strangle his attendant; so he was returned to the asylum. On admission, he was noticed to have very little affection of speech, but many grand delusions, such as having built the biggest ship in the world, being the possessor of great wealth, and altogether a person of immense importance. Very little change was observed in him for some time, and he has had no congestive attacks, but on one occasion had an epileptiform seizure.

His present condition is as follows:—He is staggering and uncertain in his walk, and very much down on the left side. The pupils are unequal, the left being larger than the right. He articulates with difficulty, and with the peculiar stuttering hesitation of the general paralytic. His tongue is tremulous when protruded. He is extremely dirty in his habits, and his capacity for indulging in oaths and obscene conversation is wonderful, even in an asylum. He is full of delusions as to his own importance, and is facile and vacuous. He is a great thief, and hoards up everything he can lay his hands on, collecting all kinds of rubbish, and storing them in his pockets, and the lining of his cap and dress. He puts great value on these articles, imagining a bit of glass to be a diamond of immense value, an old brass button a piece of pure gold, and so on. He is also very fond of decorating himself with any bit of tawdry finery he can lay his hands on. Occasionally he is quarrelsome and violent, but, if left to himself, prefers to take a cheerful view of things in general.

Regarding the diagnosis of this case; with the symptoms I have described, there seems no mistaking it for anything but one of general paralysis, and it has always been easily recognized as such by the physicians who have had it under their care. In addition to the long duration of the disease, the considerable periods of remission of the symptoms were remarkable. Such intervals of apparent health, though not for so long a time, are, however, well known to those who have studied the subject. They have occasionally led sanguine or unobservant persons to believe that there

is such a thing as recovery from the disease, or that a particular remedy has led to its cure.—*Edinburgh Medical Journal, paper of Dr. McLaren.*

AN INSANE PATIENT CURED BY A FALL, SUES THE PHYSICIAN FOR NEGLECT.—A curious case has occurred at a lunatic asylum, near Exeter, England. An insane patient who sought to commit suicide, was suffered to escape from his room, and throw himself from a balcony. The fall, while it crippled him for life, restored him to reason. He then brought suit against the physician of the asylum for damages, giving his testimony with perfect clearness, admitting that he knew what he was about and intended to kill himself, and that this was owing to a delusion that he had been long enough in the asylum, and that he should by the means he adopted, go straight to Heaven. The Court decided against the plaintiff, on the ground that no proof had been given to show that the physician was responsible for the neglect of the attendants, intimating however, that if suit had been brought against the responsible officers a different result might have followed.—*Pacific Medical and Surgical Journal.*

PHOSPHORIC ACID SECRETION IN CEREBRAL DISEASE.—We learn from *The Lancet* that Dr. E. Mendel has made a series of experiments on the above, (*Archiv für Psychiatrie*), and has arrived at the following results: The quantity of phosphoric acid excreted by the kidneys under the influence of brain disease, and compared proportionally to the other solid principles of urine, varies considerably, from 2.49 to 3.93 per cent. The substance is excreted in greater quantity at night than during the day. In the chronic maladies of the encephalon, there is a decrease in the absolute quantity of phosphoric acid excreted every day, as well as of the relative quantity in connection with the other solid principles of urine. In cases of maniacal excitement there is an increase in the absolute and relative quantity of the substance. Increase in the quantity is also observed during attacks of epilepsy and apoplexy and after the administration of chloral and bromide of potassium. The decrease of the substance in chronic cases of brain disease must be attributed generally to diminution of muscular activity, dependent on the protracted course of the disease. In other cases it may be ascribed to the general weakness and exhaustion of the nervous system, the result of imperfect assimilation.

GELSEMINUM IN ACUTE MANIA.—Gelseminum is one of the most remarkable remedies known to the profession, as it is one of the most valuable.

Its effect, when given in medicinal doses, is to relax the muscular system; it seems to be in no sense a narcotic or anodyne, except so far as it may indirectly alleviate pain by its relaxing qualities, where the undue strain upon the tissues may have occasioned it.

It is admitted that mania is due to some lesion of the brain; that the mind itself being usually believed to be immortal, can not die, and, therefore, can take no steps leading to death; can not be sick; and that it must be the organ of the mind that is affected; and it follows that it may be amenable to physical remedies.

In acute mania the condition of affairs we find is that the whole system is strained up to a high point of tension, exactly indicating gelseminum.

For several years I have used this remedy with happy results, giving from ten to forty drops every half hour, until the eyelids begin to droop, and thus show its effects. In almost every case the patient can be thus controlled without mechanical restraint.

I might give numerous cases, but with the average physician, I consider that this brief article will be sufficient to commend the use of this estimable medicine to a trial, at least.—*New Jersey Eclectic Med. and Surg. Reporter*, October, 1874.

ACTION OF CHLORAL.—1. Chloral is a very good hypnotic, and in all those diseases which consist in abnormal cerebral excitement, or are combined with this, by its soporific influence constitutes a good calming medicine. 2. It relieves pain by the fact of inducing sleep, but will not relieve pain without causing sleep. In very intense pain it exerts but little hypnotic effect, and in such cases is advantageously combined with morphia. 3. As it induces relaxation of muscles, both voluntary and involuntary, it is an excellent means in the various forms of spasm. 4. In disease of the heart and lungs, and of the digestive canal, chloral is without effect or unsuitable or even dangerous, and consequently is contra-indicated or should only be employed with caution. 5. It does not admit of being used as an anæsthetic during the execution of the great operations. 6. Its prolonged employment is not usually attended with any disagreeable effects, and if any occur, they are not of any consequence. It especially does not induce congestion of the brain or disturbance of the digestive and nutritive processes. 7. It is in most of the diseases in which it is employed an excellent palliative, but on the disease itself it usually exerts no influence. Chloral is especially indicated in the cases in which morphia is indicated, and when the latter, on account of some of its effects, can not be administered. It is contra-indicated in diseases of the heart and lungs, and of the digestive canal. 8. Comparing chloral

with morphia and chloroform, we may assert (1) that as a soporific agent, its operation is more certain and less disagreeable than is that of morphia, which it will succeed in displacing as a hypnotic; (2) that it only relieves pain by inducing sleep, and fails to remove intense pain, so that as an anodyne it can not supersede morphia; (3) and that as an anæsthetic it is far inferior to chloroform, both in rapidity and intensity. 9. Although chloral has rightly obtained admission into the *Materia Medica*, it has not yet acquired its definitive place. Notwithstanding the numerous communications that have been made respecting it, (the author is cognizant of the writings of 312 authors upon the subject,) much more has yet to be worked out respecting its chemical, physiological and therapeutical relationships before the "chloral question" can be said to be completely settled.—*American Jour. of Med. Science, July, 1874, Paper of Dr. Pollak.*

LARGE DOSE OF BROMIDE OF POTASSIUM.—The following is apparently an accidental cure, and may suggest to the minds of the readers of the *Reporter* the amount of bromide of potassium that might be given in similar cases.

Six years ago, Mrs. B., soon after her fourth confinement, was attacked with puerperal mania. For about one week, she neither slept nor ceased talking. She appeared to have an uncontrollable desire to kill her infant, and do many other strange acts. In the absence of her attendant, she went into an adjoining room, where there was a vessel filled with lard, and thrusting her arms into the lard to her elbows, brought up eight or ten pounds of the grease and put it on her head, rubbing it into her long hair, for the purpose, as she said of oiling her hair. No safe amount of narcotics would induce sleep. I prescribed one ounce bromide potassium in six ounces of water, and directed the equivalent of twenty grains to be given every three hours. Soon after taking the first dose, the nurse stepped into an adjoining room, when the patient, taking advantage of her absence, arose from the bed, went to the medicine and drank the half of the prescription, two hundred and forty grains at one time. The nurse hearing her up returned, took the bottle from her and placed her in bed. She soon fell asleep at 9 o'clock P. M., and slept without waking until 10 o'clock next morning, when she awoke quite rational, and has remained so until the present time.

She has given birth to children since, without any recurrence of the mania.—*Med. and Surg. Reporter.*

AMERICAN
JOURNAL OF INSANITY,
FOR APRIL, 1875.

STATE OF MISSOURI *vs.* BENJ. F. CRONEN-
BOLD: MURDER IN THE FIRST DEGREE.

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“The feelings of horror and vengeance excited by the bloody deeds of the insane, completely unfit the popular mind for a careful and impartial investigation of the plea of insanity, and ought to convince us that the mental condition of the accused,” when insanity is suspected, “should be examined by men who have become fitted for such duties by a peculiar course of study and experience.” “It is not necessary to go into a labored argument to prove that this method of determining the grave and delicate question of insanity, must be infinitely more satisfactory than that of summoning medical witnesses to the trial—most of whom have but very imperfect notions of the disease, and probably have not had the least communication with the accused—and forcing out their evidence amid the embarrassment produced by the queries of ingenious counsel, bent on puzzling and distracting their minds. If a physician, after listening to divers, vague and rambling details concerning a person’s ill-health, and looking at

him across the apartment, without being permitted to address to him a single word, or lay a finger on his person, should then be required to say, on his oath, whether or not the individual in question were laboring under inflammation of the lungs, bowels and kidneys, he would scarcely restrain a smile at the stupidity which should expect a satisfactory answer." "And yet, absurd and foolish as such a course would be considered in the abstract, it is the only one recognized by our laws, when the disease, whose existence or non-existence is to be determined, happens to be insanity." "When mental derangement is suspected, there are many physical symptoms and numerous other circumstances that can not be investigated in an hour or day, but require a course of diligent observation that may occupy weeks or months before the suspicion can be confirmed or disproved."

Thus long ago wrote almost *verbatim*, as we have penned it, our venerable *confrère*, Dr. Isaac Ray, in the first edition of his excellent work on the Jurisprudence of Insanity, and the words still stand in the latest editions, as scientifically true as they were when first they were uttered. And they have begun to bear their legitimate fruit in the Criminal Jurisprudence of the United States, in the substitution of commissions of specially skilled medical experts, in lieu of the ordinary jury, to pass upon the question of mental unsoundness when raised in criminal cases, so that the conclusion of the afore-mentioned authority,—"that in criminal cases, where insanity is pleaded in defence, the ends of justice would be best promoted by the appointment of a special commission, consisting of men who possess a well earned reputation in the knowledge and management of mental derangement, who should proceed to the examination of the accused, with the cool-

ness and impartiality proper to scientific inquiries,"* will probably soon become the rule of action in these cases, throughout the whole Union.

New York has taken the initiatory by statutory enactment, and it is to be hoped that Missouri will at once imitate her example. One of the courts of the latter State has recently practically adopted the course now enjoined by statute in New York, in the case of "The State of Missouri vs. Benj. F. Cronenbold, indicted for Murder in the First Degree."

A commission of experts was appointed by the court, sworn to discharge their duty faithfully, and empowered to send for persons and papers, to examine witnesses under oath, to make personal examination of the prisoner, and otherwise proceed as their judgments might suggest; their decision to determine the question as to the disposition of the prisoner, and the further progress of the trial.

The principal attorney for the defence was put under oath as to the possession of any facts which might bear upon the question of feigning, and every thing was done by the court, the prosecution and the counsel for the defence to elicit the whole truth, even to the volunteer aid, proffered by the attorneys, on both sides, to examine witnesses.

Nothing was lacking in the whole procedure to ascertain the exact truth, except the absence of rebutting testimony, and the presumable legal incompetency of the commission to determine the precise legal value of the testimony of witnesses. The prosecution, however, had no testimony to offer in rebuttal of the issue of insanity.

It might be better, however, if in all future commissions of a similar character, the commission should sit

* Ray's Jurispru. Insan., p. 70, 4th edition.

and examine the witnesses in the presence of the court. In the present case, the presence of the court was not essential.

The following history of this remarkable case embraces all the essential facts connected therewith, together with so much of the prisoner's life history, as was deemed necessary to enable the commission to form a correct judgment on the question before them.

In the narration, much irrelevant detail of the official records is here sacrificed for the sake of brevity.

HISTORY.

Benjamin F. Cronenbold is twenty-three years of age, American born, of German parentage. On December 9th, 1873, he shot and killed Richard Boetticher, who, at the time, was betrothed to his (Cronenbold's) sister. The homicide was committed on the eve fixed for the nuptials, and while the bridegroom, accompanied by his spouse and her mother, was leaving the Cronenbold residence, to have the ceremony performed at church.

The murdered man, Boetticher, was a coachman and head servant in the Cronenbold family, introduced to the family, and employed by Cronenbold, who was at the time, himself, engaged to be married to a former female domestic in the same household. To break off this match, which the mother and uncle disapproved, (Cronenbold's father was not living,) the son was induced to go to Europe, in April, 1873, but returned after a brief tour, and three months before he killed Boetticher, with no abatement in his attachment for Miss Hendricks, his affianced. After his return he heard of boasts having been made by the deceased, (Boetticher,) reflecting upon the chastity of his mother and sister, and on the fourth of December, his mother informed him that his sister and Boetticher were to be

married that evening. The same day he received an anonymous letter, reciting slanderous rumors in circulation, respecting his mother's and sister's virtue, having their foundation in the statements made in public, by his sister's intended husband, and urging him to vindicate the honor of the family, by visiting summary vengeance upon the defamer of his mother and sister.

That evening, (December 4th,) he prevented the attempted consummation of the nuptials, by shooting Boetticher in the leg, and when the next attempt to marry his sister was made, (December 9th, as already stated,) the homicide was committed.

The rumors and the anonymous letter, produced great agitation and excitement in the mind of Cronenbold, which culminated in the killing, and ended as we shall see hereafter, in complete mental and physical exhaustion. After his arrest and incarceration, Cronenbold seems not to have reasoned upon either the propriety or consistency of his conduct in killing Boetticher, or to have reflected upon the consequences of the murder, to his family or himself.

Boetticher, if he had seduced Cronenbold's mother and sister, of which there was no evidence to Cronenbold's mind, except rumor, having its probable foundation in the statement of Boetticher, over his beer, in a saloon, was about to go far towards giving the lie to such statements, and make the only reparation possible, by an unsolicited and voluntary matrimonial alliance with the family. Cronenbold made no effort to obtain the exact truth or falsity of the statements attributed to the murdered man. He did not make use of even the most ordinary diligence, to assure himself of any sort of justification in the eyes of the public, for the deed he was about to commit, in so open and undisguised a manner. There was indeed, no evidence to

show that the boasts of Boetticher were founded on facts. There was no evidence that the social disparity between Boetticher and Cronenbold's sister, influenced Cronenbold to commit the murder. Boetticher lived on terms of familiar equality with the Cronenbold family, although their chief servant, and was in no way inferior to the servant girl, whom Cronenbold intended to marry.

Cronenbold even looked up to Boetticher as one possessed of superior mental endowments to himself, which was indeed the fact, as will be shown hereafter. He seems to have had no rational justification to himself whatever, evolved from the operation of his own mind, for the committal of the deed, but gave at the coroner's inquest, the *imbecile reason*, that "*they told him he ought to do it*," meaning by they, those who had circulated the afore-mentioned rumors, and were concerned in the anonymous letter, and he seems to have regarded this as an all-sufficient justification.

He does not say to the coroner, that the virtue of his mother and sister had been defamed, the good name of his family destroyed, and he was impelled, in a fit of fury, to avenge their dishonor.

He makes no attempt at escape, denial or evasion of the act. Before the coroner he manifests no real appreciation of the momentous importance of the examination to his own future. He maintains neither silence, nor reserve on any subject, but answers, without individuality, pretty much as the interrogatories of the coroner lead him, without appearing to comprehend the ultimate weight and significance of his replies against himself. His answers are mostly in short sentences, and not always intelligible, although in the examination by the coroner, who was incapable of forming a correct judgment as to his mental *status*, language, and a com-

bination of expressions, are attributed to him, which he had not the mental capacity to frame, or to express, (if framed for him) in so ready a manner. He says not a word in palliation of his crime, and under the interrogatories and promptings, and leading questions of the coroner, whose hypothesis is evidently unjustifiable murder, he weaves for himself a web of criminality, from the meshes of which, no sane man could possibly escape, and he is either unconcerned or unconscious of the part he is taking in constructing this net. In a subsequent examination, March 21st, 1874, before the Court of Criminal Correction, "He had so little comprehension of his situation, that when the examination was closed, and he was remanded to jail, he thought that his trial was over and that he might go free."

In jail, when his attorneys, friends or physicians visited him, he never introduced any subject of conversation, but would sustain, in an imperfect and unsatisfactory manner, a conversation conducted by interrogatories propounded to him, to which he would contribute, in a capricious way, replies in monosyllables or short sentences, sometimes pertinent to the subject, but often irrelevant. For example, when his intended wife was present at one of the writer's interviews, the writer asked him in an undertone, and unobserved by her, "if she was his sweetheart," to which he replied, "yes, sometimes." To the salutation, "good afternoon, how do you feel to-day," he responded, "I feel well enough, but it don't correspond."

His counsel never received a suggestion from him, concerning the conduct of the trial, and he asked them no questions, except to inquire, without much concern or emotion, as to when they would be through with him, or when it would be over. When the writer

would ask what he meant by "it" in this connection, he would never answer unless the interrogatory suggested the answer, thus, "do you mean the trial," to which he would respond "yes." In the same way he would indicate that by the term "it," he meant the court, by saying "yes," when the court was suggested by the interrogatory.

He had private apartments in the infirmary of the jail, (which was empty of patients,) and a private servant to attend him, night and day, but did not seem to regard this as a favor or privilege, but several times asked why he could not have a cell, and "be with the others," meaning the other prisoners.

He never introduced any subject of conversation with any one. He was unsatisfactory and indifferent, alike to his mother, his sister, his betrothed, his attendant, his counsel, and his physicians. The writer made him seventeen or eighteen visits, sometimes in company with others, but mostly alone, observing him at meal times, between meals, and when asleep, and watching him during his waking hours when he did not know he was the subject of observation. He was always the same. Indifferent to his dress and surroundings, eating mechanically, and in silence what was set before him, taking his medicines generally in the same way, though occasionally refusing the latter, when no amount of persuasion could induce him to take them, reading mechanically and without reflection when his book or paper was right side up, and conversing in his peculiar way only when lead to talk by the psychical influence or commanding and resistless manner of a superior mind.

He never appeared unconscious of the murder, but was always unconcerned or unconscious as to its real effect upon the peace and happiness of his family or himself.

This was his mental condition, in his best states of physical health. He never betrayed either remorse or exultation over the homicide, and was entirely devoid of emotion of any kind on the subject. No subject whatever, seemed to excite or interest him in a rational way. He would sometimes manifest a little ill-defined and transitory feeling at being restrained of his liberty, and was at times displeased with his "sweetheart." In his amiable or rather less indifferent moods he never returned her caresses, and was indifferent alike to the *souvenirs* which she often brought him, and to her assiduous efforts, in various ways to excite a reciprocal affection, while he would evince displeasure, when she would remain longer than usual away from him.

Cronenbold before the coroner, and Cronenbold before the court, were two different persons. Before the coroner he appears as the imbecile, extenuating a crime for which life is the lawful forfeit, with the logic of a child.

He tells the coroner he committed the deed "because he had been told to do it." How like a child. Before the court he betrays a degree of mental weakness, far greater than that which was natural to him. Here there is manifest an aggravated impairment of all his powers, the result of disease. Imbecility is arrested cerebral development, and is not progressive, either upwards or downwards, except through assiduous training and consequent cerebral and mental growth on the one hand, and on the other, through the retrogressive processes of disease.

The degree of mental power of the imbecile, though susceptible of some improvement by education, depends upon the period at which the arrested cerebral growth takes place. There is a wide mental chasm between the lesser degrees of imbecility, and the ordinarily re-

cognized grades of idiocy. Cronenbold was by nature imbecile in the ordinary mental attributes of mankind. Before the coroner he displayed a weak mind, before the Court of Criminal Correction he displayed no mind. He was not born an idiot, but had become much like an idiot. He had become demented through disease, as the following facts in his history, subsequent to his appearance before the coroner, and prior to his examination before the Court of Criminal Correction, show.

Soon after his incarceration in jail, there supervened a condition of extreme nervous exhaustion; so extreme was the depression of all the powers of life, that he could not turn himself in bed; liquid nourishment, the only food it was possible to administer, had to be poured down his throat, the urine had to be evacuated with the catheter, and persistent insomnia could be overcome only by morphia, by hypodermic injection and large doses of chloral hydrate and bromide of potassium. He was obstinately constipated, and required the most active cathartics and clysters, even when not under the influence of opium. His temperature was much of the time above normal, his pulse was quick and frequent, and pupils dilated in the beginning of his attack. His gaze was meaningless, and his mind almost a blank, so that his family physicians, the Drs. Engleman despaired of his recovery. He was skillfully treated with reconstructive tonics and calmatives of the nervous system, so that by March 21, 1874, something over three months from the beginning of his treatment he had sufficiently recovered his physical health to appear before the Court of Criminal Correction, for preliminary examination. The imbecility of Cronenbold was not sufficient to account for all of his acts before the homicide and imprisonment.

It must be borne in mind, that in imbecility, as in other abnormal conditions, there is not only deficiency and irregularity, but also a great tendency to diseased cerebral action,* and this was the case with the accused, not only as we have shown, while in prison, but before. His dementia was preceded by delusions and vague feelings of dread and suspicion, and by an impression that he was not properly appreciated after his return from Europe.

He said that during the last three nights, while on his return home, he had not slept, and that he had reached home too soon. Although his home was in the city, he took apartments at a first-class hotel, to "wait until he made up the time." He expected his friends to meet him, though he had not notified them of his arrival.

When he went home, he asked his mother if she was his mother, and if that was their house, though neither had undergone much change during his less than six months absence. He knelt before the picture of his father, and prayed him to avert a calamity which he felt was impending. He suspected the purity of his food, and would not eat it until after it had been inspected by his affianced, and passed to him and pronounced all right by her.

His appetite was capricious. His conduct in various ways was singular. He would lock himself in his room and remain there several days, and not come out even to eat. On one occasion, he fired a pistol up in the air in his mother's presence, without notifying her of his intention. He was quarrelsome and excitable at the table, and would fly into a passion, and throw dishes about without apparent cause, but everything connected with the murder on his part, showed the *design* of a weak, rather than the *motiveless* or *delusional* act of the deranged mind.

* Ray, 4th edition, p. 119.

He bought the pistol, and shot Boetticher just in time to prevent the consummation of that which he sought to thwart. If he had delusions, or what he thought about the dishonor of his sister and mother does not appear. He was not under medical observation at the time, or immediately preceding the homicide, consequently his precise mental *status* can not be determined.

He was in a state of great excitement from the time he learned of his sister's engagement, heard the rumors about his mother and sister, and received the anonymous letter, until after he had killed Boetticher, when the prostration of all his powers became manifest, as already described.

It was at this stage in his history, though after he had improved in physical health, that his counsel, in May, 1874, asked a consultation of medical gentlemen, to determine his mental condition. The circuit attorney agreed to the proposal of defendant's counsel, Lieut. Gov. Johnson, Joseph G. Lodge and L. Gottschalk, and recommended the court to appoint a commission of five medical experts to examine into the present mental condition of the defendant; the counsel for the prisoner holding that, in accordance with common law, no defendant could, under any circumstances, be tried for an offense when in an unsound state of mind, he being incompetent to make a defense when in such a condition.

The court acceded to the request and made the following order:

"It being suggested to the court by the circuit attorney, and by the counsel for the defendant, that Cronenbold is now mentally insane, so that he can not be tried at this time upon the indictment preferred against him; therefore, on motion of the circuit attorney and of the counsel for the defendant, the court doth hereby appoint

as experts, Drs. Chas. W. Stevens, J. K. Bauduy, C. H. Hughes, W. B. Hazard and George Engleman, physicians of name and fame of the city of St. Louis, whose duty it shall be to make inquiry into the mental condition of the defendant, and make report to this court, at their earliest convenience, of their opinion touching the matter of said alleged insanity, such report to be in writing, signed by them, and verified by affidavit in open court."

The conclusion of the consultation, based upon personal interviews, and such of the prisoner's history as they had before them, was "imbecility," making no reference to the prisoner's insanity, it being evident that no harmonious conclusion as to the kind or degree of insanity the prisoner may have had, could have been reached, as what follows will show. For the same reason they wisely abstained from attempting to define the degree of imbecility. The writer's conclusion of imbecility was based:

1st. Upon the reason which he gave the coroner for the deed, and the absence of all individuality in the presence of the coroner, and of a due appreciation of his situation.

2d. His indifference as to the result of his act to himself, and to his family. "Such conduct, not only displays insensibility, which is not rare in hardened criminals, but betokens the mind of a child, and indicates stupidity, silliness and imbecility" * in one of Cronenbold's age.

3d. His personal appearance, physical characteristics, and life history. He was feeble and diminutive in body, his face was pale and inanimate in appearance, his eye restless and without expression, his whole make up and demeanor, revealed to an expert, more than any descrip-

* Ray's Juris. Insan., 4th Ed., p. 119.

tion can impart, his real mental state. When addressed, as we have stated, the monosyllabic responses, or short sentences in which he would answer, required and indicated little capacity for complex mental effort and the frequent irrelevancy of his answers, betrayed a confusion of mind, and an inadequate conception of the circumstances surrounding him, which could not be feigned. He was too consistently stupid for simulation. From first to last he never sought, nor had a private interview with his attorneys, nor did he have any choice or desire to have choice in their selection. His whole manner was passive, he was an automaton, with the power of feeble mental motion within himself, but set in motion, and moved by others. He was first the imbecile, and next the dement; a naturally weak mind, "by reason of a bad descent, born with a predisposition to insanity," yielding under the stress of adverse events, to disease, and progressing still further towards mental extinction.

As with families in whom that native constitution of nervous element exists, there is always, under adverse circumstances, a retrograde degeneration, so with individuals. In the imbecile, if life continues into full manhood, we expect mental retrogression, rather than progression. The brain inherently feeble, like the naturally weak body, is more liable than the naturally sound and healthy, mental or physical organization to take on diseased action.

We have spoken of Cronenbold, never taking the initiatory in conversation. He had always to be pressed by leading questions, to obtain anything from him, equally upon subjects of vital interest to himself, as on the most trivial matters. To him grave and light subjects seemed of equal significance.

One of the medical gentlemen, Dr. Stevens, was personally acquainted with Cronenbold from the latter's

early childhood, and gave his opinion, as to his feeble mindedness, as compared with the average youth and young man of his age, from many years observation, and from what he knew of Cronenbold senior's opinion of the mental capacity of his son. A long time before the homicide, he had heard the father of Cronenbold lament his son's lack of capacity, and say he thought he would never be able to take care of himself.

We think Cronenbold's facial angle is not far from 80°, though it was not measured. His height is five feet three and three-quarter inches, in his boots. He never objected to, nor asked our object in measuring his head, and did not seem to think it strange. The measurements are as follows :

Circumference,	20 $\frac{1}{4}$ in.
Bi-parietal diameter, (between the meatuses,).....	5 $\frac{1}{2}$ in.
Longest antero-posterior curvature, from occipital protuberance to root of nose,.....	11 $\frac{5}{8}$ in.

We give these measurements, as a matter of fact, for what they may be worth. The cranial measurements are slightly below the average, and comport with the actual natural state of Cronenbold's mind, though under very favorable antecedent ancestral conditions and subsequent favorable circumstances, from birth to the present time, he might, even with such cranial capacity, have passed on through life with average intelligence.

In giving the cranial measurements we would not have it inferred that cranial deformity *always* exists in imbecility.

There are even "many *idiots* in whom the brain and body appear to be well formed, while the mental development remains at the lowest stage; accidental affections of the brain, arresting its development after birth, while the cranium and rest of the body go through their normal growth, have occurred in some of these

cases; epilepsy is not uncommonly such a cause of idiocy," as he who writes, and most of those who will read this paper, know from personal observation, but it is equally impossible, as Maudsley says, in some of these cases, to assign any definite cause of the arrest of development. There may be no sign of mental degeneracy in arrest or deformity of cranial development, and yet be "abundant physical cause of psychical defect," in the constitution of the molecules of the cerebral mass, without our being able to recognize them; molecular conditions which belong to that inner life of nature, that is still impenetrable to our most delicate means of investigation, still inaccessible to our most subtle inquiries." (Maudsley.)

We can not expect to gauge with accuracy, the precise degree of mental capacity from cerebral measurements, inasmuch as we can not yet discern even "the nature of those hidden molecular activities, which are the direct causes of the different tastes and smells," those different molecular activities themselves depending, doubtless, upon structural differences in the nerve molecules of the auditory and gustatory nerves, or at their seat within the brain. Nevertheless, the greater proportion of imbeciles and idiots, are found to have the development of both mind and body arrested, and we may, with Maudsley, and all others, who have given the subject much attention, draw from our observation of these unfortunates, "the certain conclusion that there may, by reason of unknown conditions affecting nutrition, be every degree of imperfect development of mind and body, down to actual incapacity to develop at all." When we find cranial deficiency or deformity, conjoined with mental weakness, we may safely conclude that the imbecility is congenital and lasting. The writer speaks only for himself, as to the

manner in which the conclusion of imbecility was reached, and is aware how "impossible it is to specify any particular rules for ascertaining the mental capacity of imbecile persons, how circumstances always proper to be taken into account, are constantly varying with each individual case."* Few cases, says the writer just quoted, subjected to legal inquiry, are more calculated to puzzle the understandings of courts and juries, to mock the wisdom of the learned, and baffle the acuteness of the shrewd, than those connected with questions of imbecility.

Such cases as Cronenbold's, without the supervention of insanity, become, as an eminent writer truly observes, "difficult cases for medico-legal inquiry, in which the decision come to whatever it may be, may be challenged, and not without reason." (Maudsley.)

"Much of the difficulty consists, no doubt, in a want of that practical tact which is obtained by experience in unravelling their intricacies, and of that knowledge of the psychological nature of this condition of mind which directs the attention, exclusively, to the real question at issue."† Had no question been decided but that of imbecility, the question would still have remained to what extent was the prisoner responsible for his crime, and Cronenbold's escape from a felon's punishment, would have been doubtful, for "little indulgence" has ever been shown to the plea of imbecility, in criminal courts, and none could have been expected here, where the individual had acquired some education, and been assiduously taught the proprieties and amenities of good society; "his weakness concealed, and polished over by cultivation. While the public feeling has become too refined to tolerate the infliction of blows and stripes on the imbecile and the mad, in the institu-

* Ray, p. 131.

† Ray p. 131.

tions where they are confined, * * * it can still be gratified by gazing on the dying agonies, of a being unable to comprehend the connection between his crime and the penalties attached to it, and utterly insensible to the nature of his awful situation. The voice of reason and humanity, which speaks successfully in the first instance, is in the last, drowned by the more imperious tones of prejudice and passion."* The following extract from a daily paper, published at the time the case of Cronenbold was engaging public attention, shows this to be true :

Cronenbold was admitted to bail by the Judge of the Criminal Court on Tuesday, 6th inst. Cronenbold, it will be remembered, killed his sister's intended husband so as to save the family the disgrace of being united in marriage to a plebian. The fact is, the murdered man was too good for them, both as to family connections and intelligence. He was, however, poor, and was at the time of the homicide, engaged as a servant in the Cronenbold family. After the commission of the offense, Cronenbold who had hitherto been somewhat childish for a boy of his age, exhibited what was thought to be insanity, and the skillful and adroit attorneys for him, Messrs. Johnson, Lodge & Gottschalk, concluding to make this defense for him upon trial, had the five "Insane Physicians" of this city to visit him almost every day. These frequent visits of such men would make men of stronger minds than Cronenbold crazy. The attorneys and physicians found in the Circuit Attorney an easy prey to their theory, and he consented to appoint a commission, which consisted of these very physicians. They, of course, after a few hours' deliberation—long enough to write out the report—reported him insane. A bond having been given for his appearance, he was released. As there is neither law nor precedent for such proceedings, the bond is a nullity. The defendant will be sent to Europe to be treated, not as an insane man, but to break him off from a habit which young men indulge in, sometimes to the extent as to affect them more physically than mentally. Messrs. Johnson, Gottschalk & Lodge, managed the case well, and saved their client from a punishment which he justly merits—the gallows.

'Idiocy and the higher degrees of imbecility are congenital,' * or so nearly so, that it can not be discerned at what time after birth they may have originated, in any particular case. "For all practical purposes we may define them as consisting in a general destitution of mental powers that were never possessed. The lower degrees, or those which approximate more closely to the average natural standard of mind, consist in arrested cerebral development, at different discernable stages after birth," and the degree of mental deficiency depends, of course, upon the periods at which cerebral development ceases to keep pace with the normal evolution of the organism, accordingly we may expect to find in the feeble-minded, various degrees of deficiency, either in those faculties which acquaint them with the qualities and ordinary relations of things, or in those which furnish them with the moral motives that regulate their conduct to their fellow men.

"In imbecility, the development of the moral and intellectual powers is arrested at an early period of existence. It differs from idiocy, in the circumstance, that while in the latter there is an almost utter destitution of everything like reason, the subjects of the former, possess some intellectual capacity, though far less than is possessed by the great mass of mankind. Imbeciles can never attain that degree of knowledge which is common among people of their own rank and opportunities in life, though it is very certain that they are not insusceptible of the influences of education." †

Thus from the testimony of high authority, we may have arrested development, taking place from an impairment of the perceptive or reflective faculties, so as to produce only the slightest shade of stupidity, apparent only to the most intimate acquaintance, to that de-

* Ray, p. 320.

† Ray, p. 85.

gree of mental deficiency which impresses the least skilled observer, with the fact that its possessor is a fool.

Hoffbauer, acknowledging "the various and almost imperceptible shades of difference between one case of imbecility, and another, has reduced its numberless gradations to five degrees, and these of stupidity to three. To these, as described and explained by him, he looks for the means of a consistent and rational application of legal principles that should regulate their civil and criminal relations."*

To those practically familiar with the various degrees of mental deficiency as seen in our insane asylums and schools for the idiotic and feeble minded, the herculean labor of partitioning off into but eight classes, these cases, each of which constitutes a class almost *sui generis*, will be appreciated, and the remarkable success which has crowned his attempt will be duly applauded. The division might have been much simplified by throwing the three degrees of stupidity into the classification of imbecility.

The natural condition of young Cronenbold's mind, both as a boy at school and after he had "grown to man's estate," is closely approximated in Hoffbauer's description of the first degree of imbecility, which we here transcribe, together with Hoffbauer's first degree of stupidity.

"In this degree of the affection, the individual can very well judge, respecting the objects to which he is daily accustomed, and in familiarity with which he may be said to have grown up. In the pursuit of his daily concerns he often shows a minute exactness that appears to him a matter of absolute necessity. His memory is very limited, not that he loses absolutely

* Ray, p. 88.

the remembrance of things, but because he can not apply his recollections according to his wishes. He scrupulously observes whatever he thinks becoming in his station, because he fears to offend by neglecting it. When he gives himself up to avarice, there is observed in him rather an apprehension of losing, than a desire of accumulating. The nature of his daily occupations makes but small demand upon his intelligence. His infirmity is not so remarkable in ordinary society as to render it a subject of general observation. He is very subject to gusts of passion, which, nevertheless, are as easily appeased as they are excited."

In the first degree of stupidity, the individual is only incapable of deciding and judging, when it is necessary to weigh opposing motives. Then he feels his incapacity, and resorts to the intelligence of others.

While it is impossible to fully define any particular grade of mental deficiency, this is, perhaps, as close an approximation of Cronenbold's natural mental state as could be given. He brought with him but little knowledge of Europe, except the names of some of the cities he visited, and the hotels he stopped at. While in Europe, his attention was principally absorbed in finding lodgings and meals for the least money, the cheapest cigars, and the cheapest class of wine, though he was often swindled, without knowing it, by the waiters and the hackmen in making change.

As we have seen he "had learned to read, write and count, and made some progress in music." "Ray would have described him in the following language."

"He could engage in certain occupations, and had managed in a manner to take care of his property and himself, though largely indebted to the advice and assistance of others. He was one of those imbeciles, who talk but little, answer questions correctly, provided

they are not without the circle of their customary habits and thoughts, and are not required to follow a conversation. He is particularly deficient in forethought, and in strong and durable affections, and ‘ labors under an uneasiness and restlessness of disposition, that unfits him for steady employment. They are thus easily induced by bad men to assist in the execution of their criminal enterprises.’’ * * * * *

“ It is also worthy of notice, that the same physical imperfections, and a tendency to the same diseases, which accompany idiocy, are generally observed, though in a less degree to accompany imbecility.”*

There were other features about this case which the expert can appreciate, but can not well describe—peculiarities of expression, manner, movements and attitude which mark the case as one, both of imbecility and mental disease. These cases often present “ outer proofs,” of a morbid or congenitally deficient, “ understanding which can hardly be depicted to the inexperienced,” (Dr. Tyler.) “ The power of the expert in this regard is not capable of being transferred to another mind, but must die with its possessor.” * *

“ All profound and grave maladies have their specific physiognomy, more or less clear and capable of being described, some of them are fully clear and pathognomonic, like the odor of cancer, or the face of phthisis. Insanity has its own delicate characteristics of face, eye, manner, reasoning, feeling, which can be read by the expert, but which are not appreciable to the casual observer,” (Dr. Bell.)

The following is the joint conclusion arrived at by the commission of experts.

* Ray, p. 85.

To the Hon. Wilson Primm, Judge of the St. Louis Criminal Court:

We, the undersigned commission of medical experts appointed by your Honor to inquire into the mental condition of Benj. F. Cronenbold, respectfully report:

That we find the said Cronenbold in a condition of mind such as to incapacitate him for appreciating his situation as one accused of crime; that he is *non compos mentis*, and we are of opinion that this condition will be a permanent one.

We severally append our reasons for arriving at this conclusion, which statements we desire to have considered a part of this report.

CHAS. W. STEVENS, Chairman,
C. H. HUGHES,
J. K. BAUDUY,
WM. B. HAZARD,
GEO. J. ENGLEMAN.

Subjoined, also, is the individual opinions, *in extenso*, of the members of the commission, revealing more of the history of this case than we have given. It was fortunate that the court accepted the joint opinion as to the prisoner's mental impairment without scrutinizing closely the irreconcilable discrepancies in the several opinions, opinions which, if subjected to rigid examination, by an acute prosecuting attorney, assisted by a skillful expert, might have led to the impression upon the minds of a jury, that the medical gentlemen, composing the commission, did not themselves comprehend the prisoner's real mental *status*, juries not being aware of the facility with which the abstract fact of mental unsoundness may be justly arrived at, while the greatest difficulty often attends the determination of the precise nature of the cerebral lesion, and the consequent form and degree of mental impairment.

The facts here noted suggest the propriety in all these cases, where it is practicable, of the experts agreeing to a joint report, setting forth the simple fact of

mental unsoundness, with as little scientific amplification and specification as may be sufficient to subserve the ends of scientific truth and justice. For even learned judges, far above the average juryman in intelligence, are apt to think that men who profess to comprehend the complex subject of unsoundness of mind should be able, with entire unanimity, to determine the precise form and degree of mental impairment.

In the case of Cronenbold, though he appears in a state bordering upon fatuity or advanced dementia, there still remain the impress of the forced culture he received in his youth, and his memory, though it reproduces, in an automatic manner, a limited number of facts and dates connected with his trip to Europe, and the homicide, is in fact, much impaired.

SEPARATE OPINIONS OF EXPERTS—DR. STEVENS' OPINION.

ST. LOUIS, Mo.—October 1, 1874.

To the Hon. Wilson Primm, Judge of the St. Louis County Criminal Court.

SIR: Having had personal acquaintance with Benjamin F. Cronenbold, for a period of about five years, and having examined him many times during his confinement in jail, and having, with other members of your commission carefully examined reliable witnesses, several of whom have known him for a long time, I find but little difficulty in forming an opinion in regard to his present mental condition. Almost from childhood he has been regarded as weak in mind. This, however, became more apparent as he approached manhood; the condition then attracted the attention of his acquaintances and friends in general; and mental incapacity was manifested beyond question, as he attempted to transact business, or to take part in the amenities of

social life. About five years since, his father mentioned the case to me, desiring me to make observation from time to time, with a view to determining, if possible, the precise nature of the deficiency or imperfection. At length, I was convinced that he was imbecile in mind, and, further, from some of his peculiarities and habits, I believed him in danger of falling into some form of insanity. For the last three years, he has been by regular gradations verging into dementia; the change since the homicide has been very rapid; at times he has had delusions.

I am, therefore, decidedly of the opinion that the prisoner is now laboring under the form of insanity, designated dementia, and that he does not and can not judge correctly or intelligently of his present surroundings or of his responsibilities.

Very Respectfully,

CHAS. W. STEVENS.

DR. ENGLEMAN'S OPINION.

Having attended the accused, Benjamin F. Cronenbold, professionally, upon his return from Europe in 1873, and during the entire period of his confinement in the county jail, I have, by continued personal observation, been forced to the following conclusion.

1. That the said Benjamin F. Cronenbold, upon his return to the city in September, 1873, was in a state bordering upon mania, as proven by his irrational actions, insomnia and occasional delusions.

2. That for a few weeks after the homicide, in December, 1873, and January, 1874, his condition was one of absolute mental and physical prostration, torpor of mind, associated with a totally exhausted and debilitated state of the vital and nerve force.

3. That he has now fully recovered his physical powers, his memory being but slightly impaired. His reasoning faculties, however, are seriously affected, and very defective in intensity. His mind is in a more advanced state of imbecility, verging upon dementia. He is incompetent to arrive at any but the simplest conclusions, as evinced by incoherency of thought and language.

From these premises I must regard him to be totally unable to understand and appreciate his present situation, and unfit to be brought to trial. This opinion, based upon personal examination and observation, has been corroborated and strengthened by examination of the witnesses summoned before your commission.

Respectfully submitted,

GEO. J. ENGLEMAN.

DR. HAZARD'S OPINION.

YOUR HONOR:—The undersigned, commissioned by an order of Your Honor's court, of the date of 29th September, 1874, to examine into the mental condition of Benjamin F. Cronenbold, indicted for murder, hereby submits his individual report, supplementary to the joint report of the experts to which this is attached.

Having personally examined the accused on three occasions, twice in company with other experts, once alone; and having heard the sworn testimony of seven witnesses, the following facts have been ascertained to the satisfaction of the writer, and the succeeding conclusions drawn therefrom.

The aunt, grand-aunt and grandmother of the accused, all on the maternal side, were affected with some form of mental derangement.

As far back as it was possible to reach in the history of the accused, he was considered weak-minded, foolish,

or imbecile by his father, friends and acquaintances. This mental deficiency was so strongly marked that he was not considered capable of managing, or of being trusted to transact any kind of business, by those who knew him best.

He was sent to Europe to avoid what was considered an undesirable marriage, and while abroad, upon his return, and for many months thereafter, presented unmistakable symptoms of insanity, superadded to his former well-marked imbecility. This insanity was marked by alternating periods of mental exaltation and depression; the former evinced by extraordinary opinion of his own grandeur and dignity, and by persistent insomnia, restlessness and ideas of being engaged in business when he had none; the latter condition accompanied by suspicion, distrust of all those about him, and later, by well-defined delusions that he had been poisoned, and that there was a conspiracy to again poison him. The fact of general mental alienation was shown conclusively by a total change in his personal habits as regarded dress, personal cleanliness and choice of food, this change occurring, not at any period of life when natural changes of development or decay occur, but following the unaccustomed excitement of travel, and the care and anxiety occasioned by absence from home and the charge of his own welfare, to which he had never before been accustomed. This form of intellectual insanity is termed *La folie circulaire*, or *La folie a double forme* by the French writers. It was during one of these periods of excitation that the homicide was committed. The period of depression which followed was of the most extreme character; so great was this depression that life itself seemed almost extinguished.

During the months of confinement in prison, the quietude of his daily life, the lack of all excitement,

the care and attention of learned physicians, and a system of diet and exercise suited to his condition, his mental condition has become nearly, if not quite, the same as that preceding his voyage to Europe. On simple subjects requiring no exercise of the reflective faculties, he can return very pertinent answers to direct questions. Where any except the least complex operations of the mind are concerned, he can answer only at random, or does not answer at all.

He never takes the initiative in conversation. His memory of simple matters seems to be good. He does not appear to have any real understanding of the enormity of his offense against human or divine law.

CONCLUSIONS.

1. He is *non compos mentis*. His brain, the organ of thought, is not developed to the usual standard. His condition before his voyage, and at the present time, is best described by the term imbecility.

2. While in Europe, and for four or five months after his return, there was superadded to his normal or ordinary condition of imbecility, an acute attack of insanity.

3. At the present time he is imbecile to the extent above indicated, with the probability of a return of insanity of an extremely dangerous character if there is at any time presented any strong exciting cause.

4. He is now unfit for trial.

Respectfully submitted,

W. B. HAZARD, M. D.

DR. J. K. BAUDUY'S OPINION.

After a most thorough examination of the previous history, and after a careful personal scrutiny of Benjamin Cronenbold, and after an analytical study of the

evidence of many sworn witnessess, I am convinced of his imbecility for the following reasons : Strong hereditary predisposition to insanity exists on the maternal side, of which the defendant's arrested mental development was the outcropping, exposing him to the worst of all tyrannies, which, in his case, is an organization mentally and morally defective. The utmost unanimity existed amongst witnesses, both relatives and others who were mere acquaintances, therefore entirely disinterested, that as far as investigation could pry into the days of the prisoner's early boyhood the same mental weakness was evinced. In the opinion of the boy's father, who had endeavored to give him a liberal education, this misfortune and mortification had been realized and fully appreciated; and by all observers he was considered incapaciated from either taking care of himself, or transacting business of the simplest nature, with which a child of the average understanding could have been intrusted. Whilst in Europe, during the homeward journey, and immediately after his arrival, well-defined delusions of suspicion, distrust, fear of being poisoned, and an impression that conspiracies were being formed, of which he was the victim, manifested themselves, and pointed to the fact that some more acute form of insanity had been superadded to his previous mental deficiency. The confirmation of this opinion, consists in a marked alteration of character, changing his habits, feelings, manners and dress. He evinced about this time the most singular, extraordinary behavior ; his actions were discordant, his mind wandering, and all the intellectual manifestations thereof were more or less perverted.

Moods of great depression, alternating with those of excitement, and during the latter, ideas of grandeur and self-importance, were of peculiar significance, and

must strike very forcibly, all conversant with psychological inquiry and study. Apathy and aversion to friends and relatives, constituted another link which makes the chain of evidence more complete, especially as all of these symptoms of mental aberration were exciting attention, long prior to the homicide.

About this time he was examined by Dr. Engleman, his family attendant, who found all the well-marked physical symptoms of insanity, obstinate insomnia, constipation, nervousness, etc.

It is worthy of remark in this connection, that two medical men, one of whom met him in Europe, considered him insane, and the other, his physician in St. Louis, had actually recommended that he should be sent to a lunatic asylum.

A feature of this case, to which I attach great importance, is that during a prison-life of many months, although watched night and day, and oftentimes when prisoner and his visitors were unaware of the presence of others, the same stupidity, stolidity, apathy and want of appreciation of his surroundings and condition pervaded his whole conduct. His replies were monosyllabic, his gaze vacant, laugh frequent, but always silly and meaningless. His friends and attorneys could not arouse him from this lethargy, and the latter have up to the present moment never been able to gain his confidence or obtain a solitary statement from his lips in connection with his case. When urged to talk, he would second their endeavors by utter incoherence and an idiotic laugh. All the salient features of this picture when assembled into a group, confirm our belief of the boy's fatuity, and give us every assurance that he is in a state bordering upon complete amentia.

DR. HUGHES' OPINION.

The conclusion of the undersigned, respecting the mental condition of Mr. Benjamin Cronenbold, is the result of frequent and careful personal examinations of the prisoner, during the months of June, July, August and September, preceding the receipt of your commission, and of one interview since.

The conclusion of imbecility was arrived at early last spring, by all the gentlemen composing the present commission, who then examined said Cronenbold, at the request of his attorneys.

Cranial measurement also seemed to strengthen the conclusion of imbecility. Whilst it is true that many weak-minded persons appear to be well formed in brain and body, it is also true that idiots and imbeciles usually have either abnormally small, large or deformed heads. By imbecility is meant arrested development of brain and consequent weakness of mind, more or less complete, according to the period at which development ceases. Almost every degree of imperfect development of brain and mind, may exist "down to actual incapacity to develop at all."

The degree of imbecility in this case, as I recognize it, from Cronenbold's life history, and personal observation, may be found fully described in Hoffbauer's first degree, reproduced in Ray's *Jurisprudence of Insanity*, fourth edition, page 88, which, for sake of brevity, I here omit.

The history of Cronenbold's ancestry, especially his mother's mother, aunt and sister—they having all been at one time or another, manifestly of unsound mind—would lead us to suspect that he possesses a "native constitution of nervous element, which is defective and unstable," even if his present mental condition were

not sufficient to convince one of this fact. The natural weakness of Cronenbold's mind, has been aggravated by disease, involving the brain and nervous system. He appears to have undergone a decided change, to be in a mental state different from his former natural weakness of mind, which I can characterize by no other term, than that of dementia. Here too, as in imbecility "we meet with every degree of mental decay in different cases."

"Dementia is the natural termination of mental degeneration, whether going on in the individual or through generations." In this sense I use the term dementia, and consider that he is at present suffering from this diseased condition of the brain. That he had profound disease of the brain and nervous system, is established by the testimony of the Doctors, Engleman after the homicide, and there are evidences of delusions before. The paralyzed condition of the bladder and bowels, the sleeplessness for so long a time, the marked prostration immediately after the killing, confining him for weeks to his bed, and requiring for him constant medical attention, and endangering his life in the estimation of his then attending physicians, the change in his natural habits, and the delusions, which, at times, possessed and dominated his weak mind, all confirm this conclusion.

The sworn testimony of all witnesses, without exception, who appeared before the commission, was confirmatory of the opinion here expressed. The present increased feebleness of mind from disease, in his case, may pass off and leave him in the imbecile state of mind natural to him, and from which he can never escape, or it may be more or less apparent for the rest of his life. In the latter case, recurring attacks of acute insanity are apt to come on—should he recover from

his present dementia—only to issue finally, in complete and incurable dementia, or total loss of all mind.

In any event, I consider him in such an unsound mental state as to be unable properly to appreciate the real nature of his present condition and situation, or to conduct his defence as a rational man, and that he should now receive, and probably for the rest of his life, the restraint and treatment of an asylum.

C. H. HUGHES.

After hearing the reports, the presiding judge obtained the written opinion of Circuit Attorney, J. C. Normile, that the accused might be bailed for the purpose of sending him to an asylum, and fixed the bond at \$20,000. Cronenbold was sent to the Missouri State Lunatic Asylum, at Fulton, Mo., and the Superintendent is required to file a monthly report of the prisoner's mental condition, so that in the event of his recovering his mental health, he may still be tried on the indictment standing against him.

Thus ends this important case. The ends of justice have been met, society is protected against an unsafe member, and humanity has not been outraged by a judicial murder of the mentally maimed, whom the hand of charity conducts to the hospital, rather than the gallows, or the jail.

CASE OF ISABELLA JENISCH—EPILEPTIC HOMICIDE.

BY JOHN ORDRONAUX, LL. D.

State Commissioner in Lunacy.

Homicide in the City of New York, if not yet cultivated as one of the fine arts, has become so much a matter of daily occurrence that the Police Records could hardly be balanced at morning, without one or more of these eye-openers to coroners, who fatten upon the garbage of inquests. But on the 21st day of November, 1874, the citizens of the Metropolis were furnished with the recital of a crime which bore an unusual complexion, and was to that extent exciting in a direction where excitement had long ceased to be possible. As the importance of a crime, in any old civilization, generally depends more upon the social status of the perpetrator or victim, than upon the inherent character of the offence, the logical sequence follows that low people commit only low crimes, high people only high crimes. Jack Sheppard or Dick Turpin, at the Old Bailey, were far less historically interesting characters, than were Warren Hastings or Thomas Wentworth, "the cruel Earl of Stafford," in Westminster Hall, although the moral complexion of the crimes committed by either party, did not so much differ as the superficial area over which they extended. And if it be true as Pope alleges, that

" 'Tis from high life, high characters are drawn,"

we may also say that 'tis from the social ripple caused by any crime that the public interest in it arises. Vil-

lains in fustian, are too common to be noteworthy, and our metropolitan Belgravias are as little moved by a crime committed by low people as the inmates of Buckingham Palace, are by similar occurrences at Billingsgate or Wapping.

But on the morning above alluded to, a poor woman belonging to the un-numbered tenement house population, had committed a homicide of a novel and weird character which made it worthy of an Alva or Torquemada, and in consequence brought even the languid intellects of the fashionable classes to the position of *attention*. This woman, a mother, had in short, as the accounts ran, *roasted her infant child upon a stove*. What a text for the press to preach from. Some thought her rum-crazed—some deemed her under diabolical possession—some thought it one of those innominate crimes which human language can not define. Had she belonged to the upper classes, and been possessed of means to employ some of those eminent pleaders who wreak their thoughts upon expression, in the General Sessions of the Peace, and spend their lives, in the language of William Wirt, in the process of white-washing criminals, we should have had a five act judicial drama full of history, metaphysics and tangled law, terminating in a bill of exceptions as large as the Chartist petition which was rolled into the House of Commons in 1848, on a wheelbarrow.

Belonging, however, to the great unknown and poverty stricken class, the memory of the crime was soon lost from the public mind. A pauper's crime, like a pauper's funeral, does not enlist either general interest, or general recollection. A human cipher, like any other, derives its value solely from the numeral which stands before it. And so in due process of time, after the coroner had had his dole out of the case, and the

Grand Jury had presented an indictment against Isabella Jenisch for the murder of her infant child, Carrie Jenisch, there came a day in December, when, at a Court of General Sessions of the Peace, holden in and for the City and County of New York, the prisoner was duly arraigned before Hon. Josiah Sutherland, Presiding Justice.

The defendant being without counsel, the Court assigned Col. Chas. S. Spencer, to defend her. And without much, if any time for preparation, yet from his large experience as a criminal lawyer, concluding almost intuitively, from the description of the crime, that it was the offspring of a disordered mind, he tendered the plea of insanity as her sole answer to the indictment under § 30, Act 2, Title 1, of Chapter 446 of 1874. The Court thereupon appointed a Commission *de Lunatico Inquirendo*, consisting of John Ordronaux, Daniel Clark Briggs and Sylvester W. Comstock, to report upon the fact of her mental sanity at the date of the offence with which she stood charged. The Commission upon organizing tendered a jury to either party, which was declined, and they thereupon proceeded to take testimony and to examine the defendant.

From the evidence adduced before them, it appeared that Mrs. Jenisch is an Irish woman, about thirty-five years of age, portly, and with a congested face and narcotic dilatation of blood-vessels, indicative of habits of intemperance. She herself admits indulging freely at times, although never to the point of intoxication; and as she is of loose and flabby texture, it is quite possible that she might bear a larger amount without cerebral congestion, than a person of different temperament. Looking at the fact too, which was in evidence, that she had been a victim to attacks of spinal epilepsy, occurring at irregular intervals for nine years, and that, if

her countenance, in even her soberest moments indicated permanent dilatation of capillaries, it might require large doses of alcohol to produce anything approximating to sthenic contraction of their walls, it was in some degree explicable why these epileptic seizures did not supervene upon her ordinary potations, although they did upon fatigue or any other depressing cause. Her habitual night cap, when she could get it, was ale, an article not chargeable with any fulminating properties, in whatever doses taken. So far as the history of her case could be interpreted, having no original insane neurosis, nor belonging to an insane family either lineally or collaterally, epilepsy in her seemed to have arisen from slow tissue changes, the consequence of those two most fatal factors in the deterioration of the laboring population, viz.: hard work and poor living, the latter both as fruit as well as cause of indulgence in drink. On the day preceding the commission of the homicide she had moved into new quarters, doing much of the lifting and carrying down and upstairs of her furniture. Previous to retiring she drank a glass of ale, nothing stronger. Her husband, who is a cleaner of street cars, leaves home at three in the morning, returning to breakfast at seven. He is a frugal man, of good habits, and kind of heart.

On the morning of the homicide, Mrs. Jenisch rose at six, dressed and proceeded down stairs to procure fuel with which to make her kitchen fire. Her two children, a boy, aged six, and a girl, aged four, who slept with their parents in an inner room, were both in bed at the time. On re-ascending the stair-case with wood in her arms, she felt one of her fainting fits (as she called them,) coming on, and calling for assistance to one her neighbors, she immediately hurried into her room. At this point her recollection of subsequent

events ceases, and the narrative must be obtained from the mouths of third parties. The neighbor who answered her call for help, says that upon entering Mrs. Jenisch's room, she found her lying in a chair with limbs outstretched, in an epileptic fit. This witness was skilled in the phenomena of epilepsy, having often attended upon her sister who was a victim to it. The most rigid cross-examination, with purposely misleading questions, failed to entrap her into a single mis-statement of its symptoms. Unfortunately, however, she did not remain with the defendant until the latter had recovered, but quitted the room, leaving her still in the midst of her seizure. At a little before seven, a violent pounding was heard upon the inside of Mrs. Jenisch's door, accompanied by cries for help from her little boy, saying, "Mama is putting the baby upon the stove." The first person who came to the door, finding it locked (as she thinks,) ran out of the hall and climbed upon the fire-escape, and looking into the window, saw Mrs. Jenisch holding her little girl upon the stove, while at the same time she heard the child say, "Take me off the stove Mama and I'll not tell Papa." The witness noticed neither smoke nor fire in the stove, nor any issuing from the child's clothing. She could not describe either the exact position of the child. The mother, she says, was *standing* first at the stove, next near the cupboard. This is all the testimony as to the *factum* of the offence. The little boy, indeed, who is not old enough to be a legal witness, although the only spectator to the transaction, told in his childish way, after the examination was closed, how his mother took Carrie out of bed and put her *in* the stove, how she cried to be taken out, and the mother said "shut up." Being asked whether the mother held her there, he could not tell, and being further asked whether she

tried to get off, he said "*she couldn't because she sticked.*" Singularly enough, no *burns* were found upon the little girl's *hands* or arms, despite the struggles she must have made to release herself, and the transaction to this day can only be conjecturally explained.

At about a quarter past seven, the husband returned, bringing with him his brother. On entering the room, he was startled at finding it filled with smoke and steam. His wife was standing at the stove, trying in a stupid way, and after repeated failures, to put one rimmer on, when in fact, there was no central piece on which to rest it, and neither that piece nor the other rimmer were to be seen. They were afterwards found at the bottom of the stove-grate, and the wood and coal promiscuously piled upon them. He says his wife had such a dazed and vacant and stupid look, that his first exclamation was, "wife are you drunk?" She made no reply to this or subsequent questions put to her. Going to look for his children, as soon as he entered his bed-room, the little girl began crying out piteously, that her mother had burnt her upon the stove. Until this time the child had made no outcry, although as we shall presently show, she was actually burnt to a cinder in some parts.

The father immediately took the child out of bed, and in his testimony affirms that she had on a clean night-gown, unsoiled by stove black or smoke, and not burnt, but on raising it he noticed that the short undershirt was tinged with a deep yellow hue, as though by smoke, and besides, emitted the smell of burning wood. Neither the child's arms, hands, or any portions of the body above the waist were burnt. On turning her around, he saw, however, the following fearful injuries to which she had been subjected. The nates, posterior aspects of the thighs, and calves, and the soles

of the feet were burnt in varying degrees of depth, from destruction of the integument, to shrivelling of the true skin, while on the nates in particular, the roasting had been carried to the extent of producing patches of gray, scurfy, muscular cinders, which the witness and attending physician, both compared to the rind of roasted pork. It was evident that after the child was burnt upon the stove, some one had removed the night-gown she wore, placed a fresh one upon her and returned her to bed. Yet, and as the most wonderful feature in this hellish tragedy, no one had heard any cries from the little sufferer, save only the prayer, "O take me off the stove mama, and I'll not tell papa;" and when the father entered his apartments and was questioning the mother about the smoke and general disorder around the stove, not a cry or a groan came from the tortured victim in the bed-room, adjoining, and whose door was open.

On discovering the nature of his child's injuries, and that the mother appeared dazed, pre-occupied and insensible, the father started for a physician, at the same time handing the little girl to his brother. The uncle testified that, on asking Mrs. Jenisch what was the meaning of all this, she kept looking at him, but made no reply, and on his pressing her, she replied in a listless way, "I don't know, I feel sick," and immediately went to the bed, where she lay down and slept heavily until late in the forenoon, when upon the arrival of the family physician, she was roused and urged to get up. The child survived thirty-six hours, during all which time, although the mother was in the same room with it, she manifested no interest in its sufferings, took no notice of its cries, and had even to be compelled by a forcible command, to give it a drink of water. During all this time she did not speak unless spoken to, ap-

peared listless and apathetic, and moved about as one might do who was not fully awake, which as a pathological fact, was in truth her exact mental condition.

The evidence showed that Mrs. Jenisch was an affectionate and indulgent mother, always treated her children kindly, and never exhibited any cruelty or brutality towards them. Indeed, she was never known to punish them, even when they deserved it. Her sudden and unnatural change of demeanor towards her little girl during the hours of torture which followed her burning, were so diametrically at variance with her habitual conduct, that nothing but disease can explain it. The two physicians, one the coroner's and the other the family, who saw her in the last hours of her child's life, and at the inquest, were of opinion that she was simply imbruted by drink, and that upon no other principle could they account for her insensibility to the scene of suffering, which for thirty-six hours was passing beneath her eyes. There was no evidence, however, that the defendant had been intoxicated within any reasonable interval of time preceding the homicide. She certainly was not so the day before, when engaged in moving, she was not so when she went to bed upon a glass of ale; she was still less so at six next morning, and after her epileptic seizure she was constantly surrounded by those in attendance upon her child and never went out of the house; her husband is not a drinking man, but a steady, industrious German, so that the Commissioners could see no ground for the presumption, upon which these gentlemen founded their opinion, that Mrs. Jenisch was sane at the time she placed her child upon the stove.

The physical evidence of the epileptic seizure, was direct and unimpeachable, the internal evidence, from her subsequent behavior, was cumulative and corroborative.

rative of the fact, that she had been in an epileptic circle since six o'clock in the morning, and was not freed from its mental obscuration for at least thirty-six hours. All acts done by her, within that period, were tinged with the prevailing hue of her mental condition, and could be gauged, if at all, only by a pathological standard. To those unfamiliar with the chameleon phases of epilepsy, it will always be incomprehensible, how a person not in a somnambulistic state, but popularly speaking awake, may still be in such a condition of disputed self-identity, as to perform acts involving reflection, without recognizing his or her true relations to them. Self-objectivity, which is the highest form of mental intensification, appears to be interrupted, in all cases of diminished mental activity. Hence, between the point of extreme self-consciousness, and extreme self-obliviousness, there are innumerable shades of mental obscuration, during which we see ourselves, if at all, under larger or smaller angles of recognition, now in apogee, now in perigee, now in quadrature, now in full-face. It is through all these stages of mental obscuration, differing in extent of area, and in intensity, as well as duration, that epileptics are compelled to pass.

So far as any conjectural explanation of Mrs. Jenisch's conduct, can be framed from the laws of mental action, it would appear that in returning to her room, the dominant idea in her mind, was that of kindling her fire. When the epileptic seizure supervened it did not expunge it. As soon as she was able to command her limbs, she probably proceeded to the stove, threw the rimmer and cross-piece into the grate, piled coal and wood promiscuously upon them; and then, assuming that she had been in the habit of washing and dressing her little girl while her fire was kindling at morning, she may have taken her from the bed, and by mistake for

a tub, put her, feet foremost into the open stove-grate, seating her upon its edge. The locality and extent of the child's burns, would seem to indicate this. The difficulty at this point is to explain how a child four years of age, should not have struggled with its hands, to raise its body from the fire, which was burning it, to the extent even of burning its hands or arms, yet nothing of the kind was seen upon them. It may be that the child clung to her neck, nor is this unlikely, since a slight bruise was found upon the mother's eye, which may have been inflicted by the despairing child clutching at her neck. The night-gown worn by the child was never found. It must certainly have been consumed. The little boy in his statement, says, that his mother put it into the stove. But he could not tell who put the clean night-gown upon his sister, although he does say, that his mother replaced her in bed. Was this burning of the old night-gown an act of concealment? The evidence seems to negative this conclusion, for the smoke-stained under-shirt was left upon the child, to tell the story of the burns upon its body. Besides, there could be no object in preserving a half burnt garment, which neither proved nor disproved anything. Of course, the putting of a fresh night-gown on the child might be construed into a reasonable knowledge, on the part of the mother, that it was needed as a protection on that winter's morning, just as much as replacing it into bed and covering it up did. But it did not absolutely prove any knowledge of the particular circumstances under which that necessity had arisen, or of her true relations to the circumstances; and as their originator, she was evidently only an automatic actor of her own acts. When her husband came in and found her at the stove, she was still under duress to the dominant idea that she was kindling the fire, al-

though everything, coal, wood and rimmers were in a promiscuous heap in the stove.

In the presence, and under the weight of the evidence adduced, the Commission, after having tendered an opportunity to counsel on both sides, to make any remarks by way of further enlightening them, and after carefully examining the defendant, at various times, during the eight days, over which the inquisition extended, presented their report to the court, from which we extract the conclusions only.

CONCLUSIONS.

From the foregoing facts and findings obtained from the mouths of witnesses, whose testimony, hereunto annexed, remains unimpeached, the Commissioners respectfully report the following conclusions as their opinion upon the question of the mental sanity of the defendant, Isabella Jenisch, at the date of the offence with which she stands charged.

- I. That she is a person in whom the disease known as epilepsy has long existed.
- II. That on the morning of Friday, the 20th day of November, 1874, she was attacked by an epileptic seizure, from whose immediate consequences she was not freed for the space of over thirty-six hours.
- III. That, assuming that within one hour after the invasion of such convulsion, she placed her child, Carrie Jenisch, upon a fire kindled in her stove and held her there, subsequently changed her night-gown, and replaced her in bed; assuming these facts to have been established by circumstantial evidence, amounting to a moral certainty, the Commissioners are of opinion that the defendant, Isabella Jenisch, when, and during the time she was engaged in the performance of these acts, was still within the shadow of the epileptic circle, did

not know the nature, nor intend the consequences of the act she was performing, by reason of mental aberration the product of disease, and was in consequence, within the intent and meaning of the statute, insane and irresponsible.

DATED, New York, January 14, 1875.

The presiding justice having approved the findings of the Commission, an order was accordingly made on the 26th day of January, for the removal of the prisoner to the State Lunatic Asylum, at Utica, where she now remains.

It will be noticed that the Commissioners, at the termination of their report, do not say that Mrs. Jenisch "*continues insane*," a statement which has generally in past times been considered essential, though when properly examined, will be found to have no basis, either in law or science, to justify its recital. In the present case, they did not insert that finding, because—

I. The statute does not call for it, and

II. Because the principle of law upon which the statute rests is this, viz., that when an inquisition has found a person to be insane, the presumption of the continuance of such insanity arises as a conclusion of law. Hence, a mere negative inference of such person's return to sanity, can not annul a legal judgment to the contrary, for in the eye of the law he continues insane until such finding is judicially vacated. The Commissioners found that Mrs. Jenisch was insane by reason of epilepsy, on the 20th and 21st days of November, 1874, it was also in evidence that she had another seizure in December. They made their report on the 14th day of January. Could any presumption, either in law or in science, arise that she had meanwhile recovered her sanity, and was a fit subject for discharge from all restraint?

But let us suppose that they had made such a supererogatory statement as that she continued insane on the 14th of January. What would it have been worth on the 26th, when the court made the order for her removal to Utica, unless the Commission had continued in session until that time, so as to be able to certify to such insanity to the very last minute?

It was enough that she had been found insane within a reasonable time, meaning a few months, to justify the presumption that she continued so. Any other statement relating to days and dates of continuance, would have expired at sunset of the day on which it was made, and necessitated a fresh proof and fresh demonstration on every succeeding morrow. Before blindly following rules of law, so-called, it is always safest to ascertain whether such rules have any foundation in reason for their existence, and if they are shown to have none, then the mere authority of a name should not be allowed to give to error prescriptive right by mere lapse of time. *Nam plus est in opinione quam in veritate.* (Digest XXIX, 2, 15.)

GENERAL VIEW OF INSANITY.

LECTURE DELIVERED BEFORE THE BELLEVUE HOSPITAL
MEDICAL COLLEGE, SESSION OF 1874-75.

BY JOHN P. GRAY, M. D., LL. D.,
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Though appearing before you as a lecturer on so special a subject as insanity, I shall endeavor to confine myself to the matter in hand as rigidly as may be compatible with a clear view of its varied and somewhat wide relations to general medicine. Perhaps there is no single disease having a wider range. I shall not attempt, in a few discourses, to give all that might be said, with profit, to students in medicine, on so important a subject; but shall endeavor rather to point out such essential principles and salient landmarks, as may enable you to take it up, and study it intelligently from books, and from patients hereafter coming under your care.

I would here remark that the literature of insanity is very voluminous, but as I desire rather to be practical than learned, seeing my opportunity is confined to five lectures of one hour each, and your time is precious, I will not stop to quote authors, but try to condense the prevailing opinions and present to you as succinctly as possible, such views as experience may have developed in my mind during the last twenty-four years.

This lecture I shall devote to the general consideration of insanity, and the terms necessary to express its phenomena.

FIRST.—WHAT IS INSANITY?

This question opens a wide field both speculative and practical. I shall not embrace the whole field, however tempting it may be. What insanity is, medically considered, is the main question we have here to deal with. What it is in law, as a condition of partial or entire irresponsibility—in other words, its relations to jurisprudence, we shall not discuss at present. Of what it is as associated with theories of mental philosophy, we may be obliged to speak, incidentally at least. Its great social aspect, or the law of heredity, in its bearing upon intermarriage, as a question of social polity, we shall not attempt to discuss.

The definition of insanity is not harmoniously settled, although it has been a matter of discussion since the days of Hippocrates. It is probably impossible to satisfactorily define a condition which embraces physical changes and mental phenomena conjoined, and that, too, without any constant or uniform relation between them. The intimate and inseparable relation of mind and body—the fundamental fact of absolute inter-dependence of mind and brain—has not only been recognized always, but has given rise to diverse theories of disease involving positive antagonism in attempts to comprise the obscure physical and mental phenomena in a descriptive definition. And let me here say, all the definitions of the books are chiefly attempts at condensed psychological descriptions. They do not touch the essential morbid changes in the brain in any stage of the disease.

There are three theories of insanity. One that it is an actual disease of the brain and of the mind—the organ and its product. This theory logically requires the mind to be an entity of a physical nature, described by

some as a secretion, by others, as an effect of cerebral action of an undefined character. Cabanis says, "All intelligence consists in sensation, and all sensation resides in the nerves." "The somatic theory assumes the operations of the mind to be an emanation from those of the body, and considers mental disorders to be merely bodily ailments."—*Feuchtersleben*.

Prof. Tyndall has recently said: "The animal body is just as much the product of molecular force, as the stalk and ear of corn, or as the crystal of salt or sugar. The formation of a crystal, a plant or an animal, is a purely mechanical problem. * * * Not alone the mechanism of the human body, but that of the human mind itself, emotion, intellect, will, and all their phenomena, were once latent in a fiery cloud."—*Medical Times and Gazette*, November 7, 1874.

I need not accumulate quotations from writers, as these will illustrate this theory. It is the somatic or purely physical theory, denominated materialism, and first formulated by Friedreich.

The second theory is the psychical, first enunciated in modern times, by Heinroth, but nevertheless ancient. It is the purely spiritual theory, that insanity is essentially and only, a disease of the mind. Heinroth taught that insanity was a perversion of the soul, in fact, equivalent to sin. (Bucknill Crim. Lun.) Ideler thought it was an immorality, rather than a form of irreligion, looking at it through ethical relations. (Ibid.) "The mind is the immediate seat of the disease, the bodily suffering is secondary. Mental disorders may be clearly traced to their origin, sin, error, passion."

This is only another form of the theory, that insanity was a demoniacal possession, and arose from disfavor of the gods. Hence, for centuries, the insane were almost neglected or were in the care of priests, and subjected to all manner of abuse.

Says Burrows, (Comment, on Ins.) "Madness is one of the curses imposed by the wrath of the Almighty on his people for their sins, and deliverance from it, is not the least of the miracles performed by our Saviour," and Dr. Burrows is one of the authorities.

This theory in its bald form, has never in recent times, had much hold out of Germany, and has been losing ground steadily, since the death of Heinroth. Still we must not forget, that such a theory is not an *invention* by some man to come and go with him. The theory is rather the growth of prevailing thought, formulated by some master mind, and thrown into the general moving current of the intellectual life of mankind, there, too often, to influence quite as much by its sophistry, as by any grain of logical truth it may hold.

This theory is not dead, as you will have reason to know, when you come into practical professional life. You will find it in all classes of society, and frequently, as an embarrassment to your professional efforts. Intelligent people will say to you, "Doctor, it is the mind that is wrong, what can medicine do?" and you must be prepared to meet this. This theory permeates downward through each of the stratas of society and intelligence, to the ignorant, superstitious wretch, who pounds or purges or starves the body to get the devil out. This is part of the doctrine of witchcraft and spiritualism, in various forms, dignified by its adoption, even by men of science, and kept alive by fanatical and superstitious persons, under the sacred name of religion. As outgrowths of this theory we have moral insanity, emotional and impulsive insanity, and last, but not least, that figment, transitory mania. By the advocates of this theory you will be told, that insanity may exist without any disease of the brain, and they will point you to the assertions of books—printed either before microscopic inves-

tigations were employed, or before the instruments had been perfected so as to make minute investigations, or to more recent writers, who either quote from such books, or make their assertions without practical knowledge—to prove that post mortems, in a large number of cases, fail to reveal any appreciable organic changes. Says Winslow, (Lec. on Ins., p. 52.) "Can we conceive a more preposterous notion, than that sanctioned by high authority, which inculcates that the spiritual principle admits of being distorted, deluded, depressed, exaggerated, perverted, exalted, independently of any bodily disease, or modification of nervous matter," and he adds, "is it necessary that I should, in this advanced age of the science of physiology, stop to argue the question, whether the brain be or be not the material organ of the mind?"

These references to authorities might be largely multiplied, but I do not desire to do more than point out to you the tendencies of such theories, and warn you against them in any form.

The third, and I believe the true theory is this. That insanity is a disease of the brain—a morbid physical state, and not in any sense a disease of the mind, but only so far as the mind is concerned, a disturbance of its manifestations. This theory assumes a soul or spirit independent of the bodily conditions, as far as disease and death are concerned, and not a cerebral *product* in any sense. It assumes the brain to be the instrument of the mind, "the physical instrument of mental action," (Bucknill, Crim. Lun.) It assumes that a morbid physical change must occur in the brain, or its investing membranes, as a precedent fact and cause of insanity.

Helmont in 1675, in opposition to some views of Paracelsus, declared "that the mind of man itself can never become disordered, but that it is always the

Anima Sensitiva, (the bodily soul,) alone, which he personifies under the name of *Archœus*, that suffers.” *Feuchtersleben*.

I do not deem it necessary or profitable, after having set forth these three theories, to enter into any discussion, either of the merits of the so-called systems of philosophy upon which they rest, or whether materialistic sensationalism, spiritual or ethical transcendentalism or cerebro-mental philosophy shall be accepted.

What I desire to impress on your minds, is, that insanity is one of the neuroses—always an actual disease of the brain; says the distinguished Dr. Brigham: “The phrase derangement of mind conveys an erroneous idea; for such derangement is only a symptom of disease in the head, and is not the primary affection.

* * * * * The immortal and immaterial mind is, in itself, surely incapable of disease, of decay and derangement; but being allied to a material organ, upon which it is entirely dependent for its manifestations upon earth, these manifestations are suspended or disordered where this organ is diseased.” Again, as the greatest of experienced teachers Griesinger, has said—“Insanity being a disease, and that disease being an affection of the brain, a disease which also causes death it can therefore only be studied in a proper manner from the medical point of view.”

Says *Blanford*, “unsoundness of mind is but another term for disorder of the human brain, or rather of that portion of nerve matter, which has for its function, that which we call mind and mental operation.”

As to any disease of the spiritual part of man we must leave that to the clergy. There is a moral and religious aspect of insanity with which as citizens and as men you are concerned, but you can not study these aspects of the disease now, although they are among

the greatly vexed questions of the day. You will have time enough to pursue these inquiries in the progress of your professional studies, when you become physicians. Then you will have to aid you, abundant materials in domestic, social and intellectual life, in health and disease, from which social theories and philosophies are constructed. You will also have abundant materials in books, if you wish to pursue these subjects, for the literature, direct and collateral, embraces the history of 2,500 years, and the views of leading minds from the days of Socrates.

I would by no means dissuade you from the study of philosophy. It is too evident to escape your notice, that to understand the disordered workings of the mind, you must study it in health. Indeed the physician necessarily becomes a student of mental philosophy in the course of his professional life. He has to deal constantly with mental phenoména in all forms of disease. In cases of indigestion and constipation, he has often to deal with *quality* of depression—I say *quality* that you may bear the word in mind—which he may afterwards recognize in a more marked degree, as the developing central, painful impression, clouding the judgment, and disturbing the emotional life, and heralding an attack of melancholia. Further on he finds this *quality* of depression becoming a defined, concrete, painful sentiment, occupying the entire thought and ultimately developing into delusion, and the patient is insane. So in other forms of insanity, the normal, natural habits of thought—the ordinary play of feeling—will be found to have undergone an *unsteadiness* under physically disordered states, which may or may not have been brought to the attention of the physician, before the final catastrophe in open insanity. Griesinger lays great stress on this state of alteration in mental condition, at the outset of an attack.

The general fact I should like here to impress, is, that insanity is not a mysterious, strange, incomprehensible condition of mind. It introduces nothing new. It is only a heightening, lessening, or perversion, more or less complete, of the natural qualities and characteristics of the individual; a changed state of the mental operations due to physical disorder within the cranium. That this disturbance of feelings, and the mental operations are often painfully appreciated by the patient, is a significant fact. Indeed, the majority of persons who become insane detect the earlier indications, and are frequently able to give the preceding and concomitant bodily troubles. And it is not uncommon for persons to seek admission to an asylum themselves, not simply under vague apprehension of insanity, but under a recognition of bodily and mental disturbance, in which they are conscious, to use a common phrase, that they "are out of their mind," and are "not themselves." I wish here to state that I have never carefully examined an insane person who did not present physical marks of the disorder, and I have never seen a post mortem of the brain of an insane person, however recent or mild the attack, where the microscope failed to reveal lesions of structure.

I have dwelt so long on this part of the subject to bring your minds fully to recognize the one central idea of disease, and to forewarn and thus forearm you, against drifting through the too open channels of general but unscientific thought into the loose notions that unhappily prevail as to what insanity really is: to bring you to look upon it as medical men, discarding all vague speculations: to urge you to use, in reflection and study, upon this vitally important subject, your preliminary anatomical and physiological information, that under clinical study you may the more easily

apply the principles of pathology in investigations.

For centuries, mental philosophy not only overshadowed but dominated medicine, medical science looked up to philosophy, not only as more noble than herself, but accepted the data she presented for explanations of physiological phenomena, and also the terms of philosophy in which to express the processes, conditions and phenomena of physical life; and this, not only in classification, but in pathology as well. Thus we have such terms as inflammation, congestion, fever, taking simply the sensible signs, like the heat, redness and fullness, as the pathologic expression, instead of the real morbid process which caused the heat, redness, &c. Then at length the question was asked what is inflammation? Certainly it is not answered by the descriptive expression,—heat, redness and swelling. So we have the terms headache, diarrhoea, dysentery, jaundice, salivation, not one of which approaches to an expression of the pathologic state it is intended to characterize.

The brain diseases are equally ill characterized, with little or no relation between terms and conditions. In insanity, the substitution of effects for causes, and causes for effects reaches the extreme of this confusion. The mental phenomena are first taken as manifesting moral causes, and then as being the essential elements of the disease and the conditions to be treated.

The study of physical science within the last century has necessitated the limitation of philosophy to its legitimate domain, and though much confusion remains, this step has largely effected the release of medical science from its domination, so far as metaphysical conceptions were used as correlative with physical facts. Indeed the sciences of metaphysics and physics are now recognized as distinct, and the domain of each pretty well defined.

Medical science has been rapidly advanced by this revolution in the method of study, not only in diagnosis, by means of instruments for physical exploration and surgical relief, but quite as much in the more careful study of physical changes, and the application of physical processes to the study of pathology.

Chemistry, once the neglected part of medicine, has really advanced to the front rank in importance, and we now talk more of analysis of secretions, chemical constituents of blood, urine, &c., than of descriptive conditions. In therapeutics, chemistry is now fully acknowledged.

Having thus so largely dissevered metaphysics and physics, in the study of general medicine, there can be no reason for not applying the same method to the relief of what is denominated psychological medicine, and including insanity wholly and finally in the category of the neuroses. This is what we desire to do.

There are difficulties in the way of the successful study of insanity, but they are not insurmountable. I have mentioned some, the theories of mind, and the confused and often perplexing phraseology used; also the inexactness of terms, and the historical or traditional idea of mystery about the disease. All these are simply obstructions, which organization and elimination will remove or at least remedy. It may be more difficult to establish clinical instruction in this than in other neuroses, but difficulties may be overcome, and will be if a sufficient good is to be attained. As the revelations of the microscope can now be so accurately represented by photography, and the heliotyping process, pathology can be as well illustrated, in this, as in any other nervous disease, a statement I hope to be able to verify in a future lecture. It is not to be expected, however, that all this can be accomplished by a few, and at once, but in time, and by many, co-operating.

As the second part of this lecture, I wish to bring to your attention some of the terms used in all works on insanity, and which you will find it important to understand, in order to use them with proper discrimination, not only in studying the phenomena or symptoms of insanity, but in diagnosis and practice. These terms you will especially need to comprehend, if called upon to give opinions respecting the mental condition and responsibility of parties having made contracts or wills, or having committed crimes against persons or property, or in cases where it may be proposed to appoint guardians over the persons and estates of those suspected to be insane. All of which you will find to be highly responsible duties when brought to the witness stand, and called upon to answer under the solemnity of an oath, holding at the same time in your keeping, the dignity of your profession.

These terms are, hallucination, illusion, delusion, impulse, lucid interval. Of course I mean more than the simple definition of these terms, or their recognition as indicating the general possibility of insanity in any given case in which they may be found. I wish to call your attention to these terms as illustrating pathological states, and as essential to a correct understanding of the phenomena presented in conditions of insanity, and especially as necessary to differentiate insanity from other diseases of the brain, and from various disordered states of the nervous system not amounting to insanity.

Hallucination is variously defined by authors, and is used in a wide sense.

In a restricted and medical sense, it is a false perception of the senses. The person sees, hears, smells, or feels that which has no existence.

An *illusion* is an error of perception. The person transforms a real object or sound into something else.

A *delusion* is, in a general sense, a false idea. In a medical sense, it is a false belief, and mainly, as it appears in insane persons, a misinterpretation of the appearance, the manner, the speech, the acts of those about them, or their circumstances and conditions.

These three terms are often used as synonymous. They do interlace with each other. However, if you bear in mind that hallucinations and illusions are only associated with the special senses and bodily sensations, and that hallucination is wholly error, that what the patient maintains that he sees, hears, smells or feels, is utterly without foundation, and that illusion is a deception as to the identity or real character of the object, that the patient simply transforms a certain object into something else, and that delusion *only* applies to ideas, you will establish in your own minds a sufficiently clear distinction. To put the matter in the plainest possible language, hallucination is a lie, told by the senses out and out. Illusion is a deceptive view of any existing fact or thing by the senses. Delusion is a belief, by the mind, of that which has no foundation, and as we often see delusion in insanity, an untrue interpretation of that which does take place.

At this point I would recall to your minds a statement previously made, that insanity introduces nothing new. These terms, as must be evident to you, describe conditions of the senses and the mind, constantly found disconnected with insanity. All these states of mind and senses are acknowledged to be compatible with reason, with entire freedom from insanity. I do not say they are compatible with perfect health. It is apparent that these phenomena are not simple matters.

Let us first then dismiss from consideration here, certain hallucinations, illusions, and delusions, not the offspring of disease; at least, as far as we can know, and as

is generally conceded. I mean that class which belong to the reproduction of mental images such as are represented poetically in Macbeth; "Is this a dagger, &c.;" or as in Hamlet, when the Prince sees the King, his father; all those produced by reverie when voices are heard, and even images are produced, a sort of mental mirage, also those of distinguished men, such as Dr. Samuel Johnson, Nicolai the bookseller, of Berlin, Leuret, Andral, Ben. Johnson. All these were corrected by the understanding. They did not believe them, and therefore were not mad. There are hallucinations, illusions, &c., given by various writers, in which the persons maintained full belief and yet were sane, as Napoleon in his star, the radiant child of Lord Castlereagh related by Winslow; that of Baron de Géramb given by Dendy, (*Philosophy of Mystery,*) and numerous others. In these cases, it was either from superstitious education, or a belief in such appearances as not only consistent with religion, but indeed as a sort of divine revelation or foresight. Belief was maintained in their truth, and the persons were not insane. So we shall dismiss all spiritualism in whatever form, all the visions of religious devotees, and all classes of enthusiasts, including the extraordinary epidemics of the middle ages treated of by Hecker and Hallam. All these belong to the general subject in philosophic discussions, but they would only confuse the field of inquiry to which I desire now to call your attention as medical men. You only wish at this period to ground yourselves in the medical aspects of the case. Your inquiry is to be made from a pathological standpoint, and through anatomy and physiology. You have, it is true, to deal with the material organism and the phenomena associated with its activities: but here and now, only with morbid phenomena.

You will ask what hallucinations, &c., are we to consider, and why take into account any?

You will bear in mind two things: 1st. That in the class of cases already referred to, the persons recognized certain phenomena outside of, and contrary to ordinary experience. One class recognized them in their true character, as deceptive and unreal, and properly attributed them to some unrecognized departure from bodily health. The other class looked upon them as outside of their experience, but at the same time as true, considering them as revelations, from the unseen and unknown, to guide, warn, or instruct themselves or others in the affairs of life.

2d. That the history of the rise and development of the phenomena, and the explanation adopted by the persons affected, whether through advice or not, of others, qualified the hallucinations, &c., and characterized them, so that their reason accepted them, one class treating them as unreal, the other as religious reveries.

Hallucinations, illusions and delusions, not included before, and to which I would now draw your attention, are those of the insane, embracing mania-a-potū, epilepsy, hysteria, catalepsy, &c. All of these are due to recognized disorders of the nervous system, and are particularly and essentially within the province of medical practice. You will bear in mind the definition of these states. Hallucination, error of the senses. Illusion, deception of the senses. Delusion, false belief. They form a group which you will often find associated: hallucination and delusion, far more frequently than illusion. You will find many insane persons who have delusions, but who have no hallucinations or illusions. On the other hand, where you find hallucinations and illusions, you will always find delusions, if the person is insane. This brings up the question of the origin and character

of these deceptions of the senses, so-called. Delusion you will remember, is wholly an error of mind, a false belief. Now I wish to say that while I have so distinctly drawn a broad line between delusion, and hallucination and illusion, referring the latter two to the special senses, I do not wish to be understood as teaching, that, in insanity, the senses have anything to do with the origin or character, of either hallucinations or illusions. I wish to say, that while they are of the *order* of sensory phenomena, they are essentially of the character of delusions. The hallucinations and illusions of sight and hearing in insanity, have their origin in the brain, as a part of the disturbance of mental operations, and the senses have nothing to do with them. They are due to disease in the brain, and not to any affection of the organs of sense. Doubtless there are insane persons, who have true hallucinations from disease of the organs of hearing and sight, but such cases are rare; these are mostly roaring in the ears, sound of bells, and various undefined noises, flashes of light, seeing half of an object, or an object double, and other phenomena common to diseases of these organs.

But those to which I now direct your attention, only spring from morbid states of the brain, and are built up under delusive ideas. The history of cases goes to support this view, as well as the suggestions of mental philosophy. Nevertheless, I do not wish you to lose sight of the fact, that you can study the phenomena of hallucination better under such a division, and further, as all standard works, and especially works on medical jurisprudence, recognize hallucinations and illusions as of the senses, you will need to use this division, as I said earlier, with discrimination. For fear I may not recall this when I speak of treatment, I will here add, that in treatment you will discriminate, and

not attempt to treat these symptoms, as though the ears and eyes were involved. There are some authorities who look upon these phenomena as belonging, in some way, to the senses. Such a theory could only rest on assertion; only on the declaration of the persons, that they were conscious of participation of the senses, but it can have no ground work in physiology. Some have declared too, that they have touched the phantom objects or persons. This has no weight as proof, however, that the special senses are at fault. It only shows that in these cases there are added false sensations. I have heard insane persons declare they have been assaulted, have had daggers run through them; have seen them strip and point out the injuries, and declare they could see the bruises and even blood, when there was not the slightest foundation for the statements; women have declared to me they had been ravished night after night, and described the persons. A young man recently admitted, while in the office, gave a detailed account, before his father and friends, of having been transformed into a woman, by a surgical operation. He said that his stomach had been cut out and a copper one put in, that he could hear the food rattle in it, and urged me to examine it; that it was all done in daylight, in his own house, by the doctor, his father, and three men, who came through an opening in the wall when called for; that he saw these men coming through the wall, and spoke to them, and had vainly struggled against the outrage; he then made a passionate appeal to his father to confess to the act, so that I might believe his statement, and do something for his relief. He had been furiously mad, raving, and in this state of mania had been held, and these were the hallucinations, illusions, and delusions developed. After his recovery he spoke of these incidents as among the sharpest realities of his life. I might give further

illustrations of the origin of these phenomena, but it is unnecessary. The clinical history of cases shows:

- 1st. That in these cases there is no disease of the organs of special sense.
- 2d. Hallucinations disappear with the decline of delusions, if recovery takes place.
- 3d. Hallucinations take on the character of the prevailing delusions, or false line of thought.
- 4th. Hallucinations disappear in dementia or failure of mental activity, but remain in chronic mania, with activity of mind and fixed delusions.
- 5th. Entirely blind and deaf persons, have hallucinations of sight and hearing, when insane.
- 6th. Hallucinations of sight, are prominent and frequent in the dark, as well as in the light.
- 7th. In the acute stages of insanity, hallucinations and illusions are present, and rapidly change with the constantly changing false ideas, revealing their mental origin.
- 8th. The hallucinations of the insane are not simply vague sounds, or words, or lights, or ghostly shadows flitting about. They are compound and varied, often consist in seeing and talking with people, in long conversations; they are often like a reverie, intensified or personated.

(At this point cases were given, from personal experience, illustrating these several propositions.)

You must, however, not be surprised, if in all cases you are unable to draw the line sharply, but you must draw it. You will not always be able to trace a similar connection of delusions and hallucinations in different individuals. Certain delusions in one person may develop quite different hallucinations in another. This occurs as the result of education and habits of thought, and is an additional argument for the mental origin of hallucinations in the insane. In epilepsy, hallucinations have great significance. They are usually brief, and may lead to criminal acts. You may often trace an epilepsy, not suspected, by the hallucination. Hallu-

cinations usually come before the fit, but the fit may be abortive, and the hallucination be followed by a delirium, or a brief maniacal attack, instead of the convulsive seizure.

Recently a gentleman consulted me about his brother, a very intelligent man. He said he was oppressed with the idea that he had committed a horrible act, and gave this account. He was in New York in a picture gallery, and saw a man beside him with whom he talked a few moments, then invited him to his hotel, to his room, and there committed a crime. He found himself in his room at the hotel alone, and now is periodically oppressed with the terrible idea of crime, and the probability that the friends of this man will have him arrested. On this statement I suspected epilepsy, and that this whole affair was a hallucination in connection with a fit. Asked if he ever had had convulsions. The reply was he has twice since suddenly fainted away. He has an epileptic uncle. I recall the case of a very intelligent woman in whom epileptiform attacks were always preceded by this phenomena—suddenly she saw a little girl at the top of a long flight of stairs, in a red hood; she had time to sit down between the appearance of this child and the seizure. In another case, the epileptic always saw before him, preceding the fit, a man with a raised club. This phantom he always struck at, occasionally hitting an individual near him, and at other times striking the wall, or striking in the air, and falling.

Of hallucinations in mania-a-potū, I need only remark that the history of the case would readily show what origin they had. Besides, the hallucinations following alcoholic poisoning are generally sufficiently characteristic to stamp the case. The hallucinations of hysteria and catalepsy are in the nature of ecstacy of which the lives of Anchorites and Mystics give us many illustrations.

The next term I would call your attention to, is "impulse." Perhaps there is no term of less intrinsic significance, in the study of insanity. It expresses no condition of insanity, and characterizes no true phenomena of the disease. Its use only creates confusion, and it is as unnecessary as it is inapplicable. It is one of those make-shifts coined to meet cases ill-examined, and has mainly been used to screen criminals from the just punishment of the law. It is one of those substitutions, of metaphysical assertions for physical facts, which have so hindered progress. It has done more to bring the profession into just contempt than any other term of speculative expertism which has obtained foothold, under the guise and protection of science. This term while it was only applied as a qualifying word to describe certain acts of the insane, which were suddenly executed, and apparently without premeditation, did no harm. Here it had the same meaning as when applied to acts of the sane. The word was used as qualifying a mental state during an act, such as impulsive suicide, impulsive homicide. By transposition it is suicidal impulse—homicidal impulse. The transposition is easy and simple, but mark how it changes the sense. Now it declares not that these acts were apparently unpremeditated and sudden, but that in the mind there was suddenly generated a murderous impulse, an irresistible power, which, without the intervention of reason, or any intellectual act or motive, suddenly impels to the physical acts of suicide or murder. One step more and a murder is "impulsive insanity." What could be more absurd, unphilosophical and illogical, than such a conjectural condition of mind and body. Impulsive disease! Why, one might as well talk about impulsive diarrhoea or hydrophobia. Yet it is a grave thing, because it is unfortunately installed in the vocabulary of both medicine and law.

Bucknill says, it can only exist on the basis of a diseased emotion, and we do not credit disease of emotions. Maudsley describes it as a convulsion. "The impulse," he says, "is truly a convulsive idea from a morbid condition of nerve element, and is strictly comparable with an epileptic convulsion." If it is an idea, it is not an instinctive act. Griesinger speaks of cases where individuals hitherto supposed to be perfectly sane, and in the full possession of their intellects, "are suddenly, and without any assignable cause, seized with the most anxious and painful emotions, and with a homicidal impulse as inexplicable to themselves as to others." p. 264-5. He gives three examples from somebody else, none from his own large experience. The first is a case about whose physical condition nothing is said. The patient's letters are the evidences of this state. The second is that of a woman who seemed about to smother her child, but who was detected, and immediately was seized with the most violent feverish symptoms, which lasted for several weeks. After recovery, she had no recollection of the occurrence. The other is that of a woman who consulted a physician, "about a complaint concerning which she was in despair." She was tempted to kill her children. A careful reading of these cases would place the first and last cases under melancholia, and the other under mania. This latter probably had no intention of smothering her child; but the chill preceding the fever, in her state of mind, suggested the idea of covering the child.

Griesinger says, p. 302, however, with characteristic judgment, "we can not speak of the absence of delirium in these cases, where there is a morbid impulse to commit acts of violence. That the murderous ideas are, in themselves, delirious ideas, just as in furious mania, and in all violent emotion, as in rage." The

morbid disposition he believes gives rise to the vague and disturbed ideas, opinions and conclusions. In fact, this state is, in its mental uncertainty and incoherence, quite like the more demonstrative states of incoherence in mania.

Griesinger makes this significant comment, "we recognize the fundamental fact that in no case of mania, is the conscious thought, the intelligence, perfectly free from any disorder. Even, in the very slightest degrees of mania, the intelligence participates in the general exaltation." This certainly is conclusive as to his views.

On concluding this matter he gives the following sound advice, p. 303: "it is at all events more advisable to allow these obscure terms, which provoke the curiosity of lawyers and other laymen, to fall completely into disuse."

Says Bucknill, (C. L., p. 39:) "It would be well if the term *insane impulse* could at once be banished from medico-legal discussions. The adjective in common use, *uncontrollable*, is also liable to serious objection." He further adds, (*Ibid.*) "The real question is, not whether the emotions occasioning the overt act, are beyond the power of the individual to control, but whether they are the result of disease." This, gentlemen, is indeed the sum of the whole matter. If certain acts and ideas are traceable to cerebral disease, they have a pathological origin and are excusable; but if not, the individual is responsible, in law and morals, and is not insane, no matter what he may have done or what opinions he may have uttered, without respect to whether man is considered a spiritual being or simply a physiological machine.

There is another term of which I will briefly speak, "lucid interval." This term has its principal signifi-

cance in jurisprudence, particularly with reference to wills and contracts, but occasionally with respect to crimes. You will have to deal with this term in general practice. You will be called upon to determine whether patients, who have been unquestionably insane and who have had guardians placed over their person and estates, have really recovered, or whether certain rational speech and conduct amount to what may be called a lucid interval. So you will be called on to draw this same line in behalf of persons acknowledged to have been insane, and who have for a time manifested no irrational conversation and habits, and are desirous of executing a deed, or making a sale, or contract, or assuming some trust. You will need to appreciate the meaning of the term lucid interval.

In ordinary disease we use the words intermission and remission to express temporary suspension or abatement of symptoms. We know the disease still exists. We expect the phenomena to reappear. In insanity there are also apparent intermissions, and there are remissions, but a lucid interval is a condition not of entire freedom from disease, but a degree of clearness of mind, which for the time holds in abeyance the true manifestations. I have seen such cases during the progress of insanity. If you are called upon to answer on this question, which is a matter by no means settled by the books, it is safe to first make your own definition, as being an abatement or non-manifestation of symptoms, and if this is not enough, then express only an opinion as to the rational or irrational conduct, manner and speech of the individual as then brought before you, keeping in mind also that rational and sane are not convertible terms. The term sane is a positively defined state of soundness. Rational is applied also to particular acts or manifestations, to the

seeming or apparently rational condition of mind as casually observed in the speech and conduct. An insane man may appear rational, but he can not at the same time be called sane.

There are other terms used in a more or less technical sense, but these are the terms, which you will find it especially important to keep in mind, in diagnosis and practice, and particularly if you are on the stand as medical experts.

I said in the beginning I should not discuss philosophy, or the theories of mind, except incidentally. To this extent it has seemed necessary to the appreciation and proper elucidation of this subject, particularly as the tendency of the times is rather to obscure physiology by the intrusion of metaphysical speculations and generalizations. I have wished to impress upon your minds the absolute necessity of studying insanity in its strictly medical aspects and from a pathological standpoint, and of studying psychology as another branch of science, the science of the philosophy of mind. I cannot too strongly urge you to ground yourselves in anatomy and physiology if you would be successful in the study and treatment of nervous disorders. Know the organism well, and all its varied functions, and then whatever view you may take of mind in the abstract, you will not fail to appreciate the symptoms and disordered processes, which you will, as physicians, be called upon to treat.

You will then find, if familiar with all these, that it will be of far more consequence to you, to be fully in accord with medical science—to understand thoroughly the laws by which this wonderful mechanism of body and mind exists, and to be able, at the bedside of the patient, that crucial test-point for all of us, to interpret the phenomena of nature as she reveals them in health and disease—to be truly Doctors in Medicine, rather than to be Psychologists or even Philosophers.

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Second Annual Report of the State Commissioner in Lunacy, for the State of New York, for 1874. JOHN ORDRONAUX, M. D., LL. D.

The Commissioner gives a history of the legislation looking to the revision of the statutes, relating to lunacy; enumerates the changes and additions made in the code, and treats of its workings during the year of its operation. The objections made, are almost exclusively the result of negligence on the part of those complaining, and are rapidly disappearing as greater familiarity with its provisions is gained. The report contains a strong recommendation for providing suitable accommodation for adult idiots, and also a separate institution, for the care and treatment of epileptics, of which there are now under care in public institutions four hundred and seventy-seven, and probably twice that number in private families.

The history of epilepsy, is said to be the history of violence, and too often also of crime, either attempted or accomplished. In the State Criminal Asylum at Auburn, out of a population of eighty-nine of one sex, there are sixteen epileptics, or nearly six per cent., all of whose crimes were those of violence or emotional excitement. The condition of the insane in the County Asylums, has been made the subject of examination, and the dietaries of those institutions very justly criticised. The attention of

the Board of Charities and Corrections of New York City, was called to the necessity of furnishing a more liberal diet in the asylums under their care.

A full report is made of the action, and result of the investigation of the King's County Asylum, at Flatbush. In his first annual report, Dr. Ordronaux called attention to the insufficiency of the dietary of this Asylum, and to the deficiency in bedding and furniture. During the year these articles were not furnished in quantity, more than sufficient to supply the places of those worn out, and the deficiency continued. The complaint that the Commissioners of the Asylum failed to provide the Institution with certain necessaries of life, of prime importance to the sick being made, he instituted a formal investigation. The testimony taken, is, in the depositions of Dr. Carlos F. Macdonald, Superintendent, Dr. Archibald Campbell, Assistant Physician, of the matron, cook and attendants, presented in the report. From them it appears that there was such an insufficiency of diet, both as regards quantity, quality and variety, that the health of the patients was seriously affected. We quote from Dr. Macdonald's affidavit.

"Cases of scurvy are not infrequent, and general anaemia and bowel complaints are common; and acute diseases exhibit a greater fatality, because patients are not so well able to resist their ravages. Even attendants notice these things, and state that patients are getting sick because of their low diet. I have made these things known on several occasions, to the committee of the Asylum and also to the general store keeper. Sometimes an improvement has followed a complaint, but it has not continued. The present absence of butter in the Institution has frequently been brought to the notice of the Commissioners. Owing to the low diet the patients are much more disturbed and turbulent, and their recovery greatly retarded.

There has been a lack of clothing throughout the past winter; friends in many instances being compelled to supply it; also of bedding—many of the beds have but one sheet, and some not any.

Owing to the destructive habits of some patients, and the difficulty of obtaining a fresh supply, there is much suffering on this account, some having to lie naked in bed, while their garments are being washed. I have frequently called the attention of the Commissioners to these facts.

There is also a great lack of furniture in the halls, and bedrooms, such as chairs, settees, and bedsteads, so that many of the patients have to sit upon the floors. There is also a great scarcity of towels, combs and brushes, and attendants complain that they can not keep patients clean on this account. These facts have also been mentioned to the Commissioners.

The attendants constantly complain of these things, and threaten to leave, and several have already done so—among them one of the best, and the service has thus lost the benefit of experienced and reliable persons.

CARLOS F. MACDONALD,

Med. Supt. Kings Co. Lunatic Asylum.

The testimony of the others was to the same effect.

Following the investigation in which all the charges made, were sustained, the Commissioner addressed a communication to the Board of Supervisors of the county; no notice having been taken of this, after a session of the board had supervened, he addressed a second communication, setting forth more minutely, the want and destitution that prevailed. The next day the needed articles of food were received.

"In obtaining this relief nearly three weeks were consumed, which, added to the previous three or four weeks of destitution, made it a historical fact that for over six weeks a community of sick persons in a public hospital contiguous to the city of Brooklyn, and whose tax-paying citizens had abundantly provided for the support of these unfortunates, was allowed to suffer for the want of articles of food the most indispensable to their prostrate condition.

* * * * *

Not long after these occurrences, complaints again reached me that while a slight amelioration in regularity of food supplies had been secured, the bedding and furniture were still inadequate in amount, and lastly and more seriously still, that great insubordination existed in the Institution, owing to the fact that the subor-

dinate officers, imagining because of their appointment by the commissioners, and the existence of certain relations of personal friendship and political obligations between them, that they were the equals, if not the superiors, of the medical superintendent and his assistants, deliberately violated his orders in some instances—neglected them in others, and manifested a general disinclination to show him that personal respect to which his office and character entitled him. Official complaints presented by him to such of the commissioners as he could gain access to, were unheeded, and it is doubtful whether any of them ever reached the board in their corporate capacity. If they did, they were treated with contempt, since no redress was afforded, while those who had insulted him and trampled upon the discipline and character of the Institution were kept informed of these complaints, and induced by their political sympathizers to repeat their aggressions upon the executive authority of the medical superintendent. Finding himself unsupported by those whose fiduciary relations to him imposed that duty upon them, and perceiving that no appeals to that sense of duty could awaken it into action, the medical superintendent and his two assistants resigned in a body on the 5th day of August. * * *

With unbecoming haste and an utter disregard of the official proprieties belonging to such an occasion, the commissioners immediately accepted this resignation, and thus gave countenance and support to the spirit of insubordination and lawlessness which had finally triumphed through their acquiescence, over the authority and prerogatives of a zealous and accomplished executive officer.

In view of these facts and in the interests of all similar institutions, I would call the attention of the law-making power to the following conclusions, as explanatory of the misgovernment of this Asylum :

First. That the medical superintendent had not sufficient executive power given him to render his administration efficient. Any officer, however high, or however humble, who is not provided with means to meet and overcome emergencies, will always move in a paralyzed way, and continue to endure wrongs which he knows he has no power to conquer. His only safety consists in that neutrality of behavior which seeks escape from responsibility through inaction, and finds in an inglorious retreat from the emergency, the easiest way of preventing his own decapitation.

Second. That the commissioners had utterly failed in their personal, as well as their corporate relations to the institution, evidence being laid before me, that for over a year, no member of

the asylum committee had visited or inspected the wards—had acquainted himself with the quantity or quality of food supplied from the kitchen by personal inspection; or knew by direct observation what was the state of the furniture of the institution as to deficiencies in clothing, bedding, chairs, washing and toilet articles, or any other matters appertaining to the decencies of domestic life.

It was also and further made apparent to me that the commissioners in appointing such officers as the steward, matron and others, had given them no specific information as to the details or limits of their sphere of duty—their relative rank to the medical superintendent and other officers—or to the law of subordination under which the officers and attendants in such an institution must mutually act. They appear to have sent them to their places without any other formalities of induction than the personal notice of their appointment, and the assurance that they could not be displaced by any other power, an invitation to insubordination as profligate as any that can well be imagined, and one which, as the sequel has shown, was not allowed to go unimproved.

The fact also as stated by Dr. Maedonald in his deposition that no printed rules or by-laws for the internal government of the institution existed, is another proof of the negligent oversight exercised by the commissioners of the trust committed to their keeping. It could not be otherwise than that insubordination should spring up in an institution where no source of definite authority being kept in view, and no living symbols of its commands being law, each officer and attendant became a law to himself, making his own rules and changing them at will."

Report of the Commissioners of Lunacy, to the Commonwealth of Massachusetts, January 1875.

The Commissioners are Dr. Nathan Allen and Wendell Phillips. Dr. Allen has written the bulk of the report and treats of the general subject of insanity, its distribution, cost to the State, and the details of treatment in asylums. He concludes that there are now in the State more than 4,000 insane; that insanity is on the increase; that for the twenty years, from 1850 to 1870, this increase was about 12 per. cent. greater than that of the population. Further analysis of the statistics

shows that this increase is largely, if not entirely made by the foreign element of the population. Nearly one half of the insane in the State, are still outside of the hospitals.

There are three classes of the insane, viz.: State patients, those who have no legal settlement; of these five hundred and one are provided for in the various hospitals, and three hundred and nineteen at the receptacle at Tewksbury, at an expense to the State of \$125,000 annually. This is for board and care and does not include the appropriations for buildings, repairs, extraordinary expenses, &c. The second class of the insane, and the largest, consists of those who are legally chargeable to towns and cities. Of these, six hundred and sixty two are in the hospitals, and the rest are cared for in the County Asylums and poor houses. The expense computed as in the former case is \$175,000. The third class, or private patients, supported at their own or friends' expense amounts to about one fifth of the whole. The sums paid by them varies from five dollars to one hundred dollars, per week. The whole amount paid by the State for the support of the insane, including the interest on the investments in hospitals, and county institutions is about three fourths of a million of dollars. This gives an approximate idea of the pecuniary interest of the State in the subject of lunacy.

The question of what disposition shall be made of the large class of chronic insane is next adverted to and the origin and history of the Tewksbury receptacle is given. From the statistics presented, we learn that since the opening of the Institution, October 1866, to October 1874, 1,173 inmates have been received. Of this number, thirty-seven have been discharged recovered, and fifty-one improved, while four hundred and thirty-five have died. This is a per centage of mortality of 37.08, regarding which Dr. Allen makes the following comments :

"The column of deaths in this table looks large. From its uniformity it does not appear that any epidemic has prevailed there. It might be supposed that the material composing this class would be of a very frail or perishable character; but whether the percentage of mortality has been greater in this class than it would have been had they remained in the lunatic hospitals, or whether there have been any particular causes in the asylum tending to increase unduly its mortality, are questions requiring a more extended and thorough investigation than we have either the time or the means at hand to make. In a sanitary point of view, some improvements might be made, which undoubtedly would prove advantageous. There should be better ventilation in every room, from the basement to the top of the building. Then the halls and dormitories should be divided in a manner that would admit of some classification; and if small L's or wings were added to the present structure, it would improve very much the comfort, and, perhaps, the health of the inmates. Something might be done, too, for their amusement and recreation; and we think they should have food more nutritious and of greater variety."

It would not seem that any more severe criticism could be made by the strongest opponents of this system. The recoveries are 3.15 per cent. of the admissions, which is a subject of congratulation to the Commissioners; but when we remember that more than one-third of the admissions were from other sources than from asylums, it might reasonably be questioned, whether, if they had been sent to the State institutions, a larger number might not have recovered; this small number recovered without treatment. Though the Commissioners do not directly recommend any further increase of these institutions, a fair inference from the report would favor this view. The remarks on the treatment of the insane, consist largely of platitudes. It is asserted that the best medical treatment should be employed; that moral treatment, in the way of amusements, recreation, labor, &c., is important; that the law of exercise, as applied to the mind as well as the body, should not be overlooked; that sanitary influences are

more important often than drugs. These principles are the basis of treatment, and are constantly enforced in all well regulated asylums. The remarks under the heads of personal treatment, character of attendants, diet, restraint, freedom allowed, reprobation of all punishment are in the main correct, but in them all, there is little that is new or which has not been more fully considered in the reports of institutions under the visitation of the board, and especially in the reports of Dr. Earle, of Northampton.

Upon the subject of visitation of friends and of correspondence, the Commissioner makes the following judicious remarks: the italics are our own:

"It should be borne in mind that the disease of insanity is very unlike other diseases, inasmuch as the mind is affected,—its balance, its governing power is, for the time being, lost. It is unlike other diseases in another respect: it must generally be treated and cured, if at all, away from one's home, family and immediate relations. It is very difficult, moreover, for their friends to realize always the effects of their presence and visits upon the insane—to be convinced that they may excite and make them worse, thereby tending to prevent the very benefits for which they were sent to the hospital. There are times when the mental state of the insane is such, that they can not properly see their friends (bringing up the tenderest and most affecting associations) without making them worse; and then, at other times, these same persons may receive such visits without suffering the least injury. *Now, the superintendent or the physician in charge is the only person who can judge of this fitness; and if he is competent to be intrusted with the charge of the patient, his counsels on this point should be respected.* How often physicians in private practice do virtually this very same thing, by leaving directions at certain times that the "patient must not see company." Hence, when friends call at lunatic hospitals, they must sometimes wait till the patient is seen; their requests are perhaps denied, and they return home disappointed. When parties have been very persistent in their requests, superintendents have said to them, "My advice is so and so, but if you insist on seeing the insane person, you must take the responsibility." Now, there may be at times unnecessary delay in

waiting, or something in the spirit or manner of the physician or attendant that is not pleasant or agreeable, yet the friends or visitor should bear in mind *that it is difficult to conceive what motive the physician or attendant can have to deny any reasonable or proper request for communication with the inmates secluded in the asylum*; and the physician, too, should bear in mind that this very seclusion may create in the mind of the visitor an unusual or undue solicitude, and perhaps a proneness to suspicion, which nothing but the utmost frankness and candor can allay."

On the subject of correspondence, the Commissioner indulges in some special pleading, evidently having in mind the State law, the drift of which will be readily perceived in the quotation :

"But this question of correspondence encroaches directly on the right or principle of personal liberty, which should not be violated or restricted more than is absolutely necessary. It is analogous to the "right of petition," which, in a republican government, should always be granted to the lowest and humblest individual. The writing of a letter to one's guardian or friends, soliciting aid or relief, is virtually the same as the "right of petition," and should certainly be granted whenever it can be done without injury. Now, inasmuch as there may exist, even in lunatic hospitals, serious objections to submitting always to the "one-man power;" inasmuch as the insane may come in conflict in other ways with the superintendent, why may they not be allowed the "right of petition" to a third party? They are permitted to write to the superintendent or to the trustees, why not to a disinterested board or commission outside of the institution? Can not they judge of the character of this correspondence as correctly and dispose of it as wisely as the superintendent."

As the refutation to all this, we would refer to the previous quotation, especially the italicized portion in which apparently Dr. Allen takes the view of a physician and not a Commissioner, and overthrows himself.

He says that from the stories of abuse and from investigations occasionally held, a prejudice has arisen against asylums, and the press and the public mind is excessively sensitive upon the subject: that on the other hand

Superintendents of Asylums claim that these stories originate from patients discharged uncured, and that the unjust prejudice prevents their being dealt fairly with by the public.

This condition of things he asserts gives occasion for an independent agency representing the public, whose duty it should be to examine the truthfulness and character of complaints, to visit the hospitals and become familiar with their management, and report to the Legislature from time to time. This agency it is claimed is found in the Commissioners in Lunacy, and should be made permanent.

Among the suggestions for improvements are the establishment of separate institutions for Inebriates, for Epileptics, and for the Criminal Insane. A recommendation is made for the adoption of some uniformity in hospital statistics. He asserts that reports contain much valuable information, but that it is so scattered and diffused, without system or order, as to be practically of little real benefit to the public. He would have the Superintendents of Asylums in each report, treat of some particular subject, as for instance the causes of insanity, the relation of intemperance as a cause, &c., and have it circulated, in tract form, among the people. Something should also be done, in the way of instruction, looking to the prevention of insanity.

The future policy of the State in regard to building Asylums is the next and final heading of Dr. Allen's report. He advises the erection of a number of smaller institutions capable of accommodating some two hundred and fifty patients, and so located as to distribute their benefits more generally over the State. Large hospitals are looked upon with disfavor. "These large establishments are found, too, far more unmanageable; accidents and abuses are more likely to occur in them;

sanitary hygienic agencies can not be applied in such cases so successfully, especially in out-door exercise and work upon the land." The report closes with another appeal for a permanent Commission of Lunacy, supported by a statement of advantages to accrue to the State, drawn largely from the experience of other countries, especially England and Scotland, and still further sustained by a communication from some anonymous author.

The second part of the report by Mr. Phillips, is the one most calculated to attract attention. Although starting out with the assertion that from illness in his family, he had not been able to attend to his duties as Commissioner, he still does not hesitate to express the most decided views upon the commitment and treatment of the insane, such as should only have been formed from a personal experience, or patient and protracted investigation of the subject. To his mind an asylum is a place of "imprisonment" "close confinement," where no communication by correspondence or visitation is allowed to the unfortunate patient; an institution without sanction of law or necessity, in which people are confined with the design of robbing them of their liberty and property. He states that he heard of one such instance. And that "in the case of one person now confined in one of our State Asylums, my conviction is that he was not insane in any sense to justify restraint at the time he was sent to the asylum." From one instance, in his opinion, of improper restraint, he would judge of all. No further proof is adduced of the charge of improper detention in asylums, and upon such insufficient data, coupled with pleasing talk of "the genius of the Saxon law" which "guards the liberty of the citizen with the most jealous care," he would condemn the whole system of commitment to asylums

He cites as analogous the case of persons suspected of crime. It is true, that in such, every safe guard is thrown around the citizen to prevent the injustice of imprisoning the innocent, and letting the guilty go unpunished. The prisoner is allowed every opportunity to communicate with friends, learned talent is employed in his defence, a jury of his peers, which is thought to be the greatest bulwark of defence to the citizen, sits in judgement on the case. This is all well and it should be, but even under such favorable circumstances, mistakes do occur. In the last year of Governor Dix's administration, in the State of New York, no less than twelve persons were pardoned from the State Prisons, on the ground of their innocence of the crime with which they stood charged, and for which they had suffered imprisonment. On the other hand, in 1872, under the administration of Governor Hoffman, a Commission of three entirely disinterested persons, among them the Attorney-General of the State, was appointed to investigate the charge of false imprisonment in Asylums in the State of New York. All of the institutions, both public and private, were visited and investigated, and the unanimous report of the Commissioners was, that no one was improperly detained in any Asylum in the State. These patients were committed upon the certificates of two physicians, and were all insane. We know not what Mr. Phillips idea of insanity is, but it is evidently not in accord with the usually accepted view, that it is a disease of the brain, and belongs properly in the domain of the physicians art. He says, "If it be necessary to apply to a physician in any case, then physicians of eminent skill, of known integrity and independence should be appointed by the State, and no person should be adjudged insane sufficiently to be confined in an asylum unless on the certificates of two of the physicians designated by the State."

The responsibility of making out a certificate of lunacy, he would take from one's family physician who is most probably the friend and neighbor of the sick man, his confidential adviser, who knows all the peculiarities and circumstances of himself and family, who will answer for his act, to the community in which he lives, and whose reputation, and often success in life would be compromised by an error of judgment or an injustice to his patient, and confer it upon a stranger who never saw the patient, and knows nothing of him, and over whom the only restraint is that of official accountability.

Upon these persons he would confer a power which "is too great to be trusted to husband, wife, father or son, as against a near relative." Such opinions do not meet the standard of good common sense and judgment. Mr. Phillips is suspicious of all who may have any authority in the premises. He would have a State Commissioner in Lunacy visit every case within forty-eight hours of its commitment to an asylum, and decide upon the propriety of the detention. Had he any just idea of the difficulties at times surrounding the decision of this question, which even the law recognizes in criminal cases, by sending patients to asylums for "observation," he would not clothe a commissioner with the intuitive knowledge which he would seem to claim for himself. Even after he has passed the ordeal of the State Commissioner, this is not enough: "a man supposed to be insane, should never be debarred from calling to his assistance such of his friends and such legal counsel as he prefers. To secure this he should be allowed to correspond with any one he chooses." "The sufferer should be allowed to select his own help. His liberty of correspondence, therefore, should be unchecked."

At this point we would like to inquire when this question of the man's mental condition is to be settled,

and by whom. What time is he to be allowed in which to recover. If every asylum is to be made the arena for such strife, it would be better at once to put the patient into the hands of the lawyers, who would, at the same time, settle the question regarding the disposition of his property.

We are treated to some new theories, which, if accepted upon the dictum of "one man" would work a revolution in hospitals and asylums, as follows: "A diseased man, surrounded by hundreds of men similarly diseased, must be injured, and his cure prevented. Particularly must this be the case in mental disease."

These statements will not change the generally received opinion, correctly founded upon the experience of the past, that great advantages accrue to both patient and physician where a number of patients similarly afflicted are treated together. To the physician, it gives a more extensive opportunity for the study of disease, which lies at the foundation of all accurate knowledge and successful treatment. It makes a skillful physician, which is of the utmost importance and advantage to the patient. The principle of congregating patients renders possible the construction of buildings and the adoption of measures and appliances in treatment, which could not be done, in the case of a small number. In the treatment of insanity, we have in the classification by wards, a valuable and necessary remedial measure which can only be provided in large institutions. He says;

"Again the one or two persons at the head, chosen for their high character, great skill and profound interest in the treatment of the insane, can not have any real, personal oversight of this large crowd. They must unavoidably trust to hired help; we all know how untrustworthy that is. The hospitals can get no better than we all get. Yet who cares to trust a sick friend alone, exclusively in the charge of such assistants as he can hire."

This charge would hold against any system of care, except where the patient is attended by his friends unassisted. The imputation thus cast upon all who are employed, manifests a spirit of suspicion which would destroy all confidence between men in all relations of life. It is an assertion so broad as to include all, from the responsible head to the lowest employé. Such remarks indicate a total ignorance of the system of responsibility which is adopted in all institutions.

The charge of ill-treatment and abuse on the part of attendants in asylums, is here repeated. No one would claim that even with all the care in the selection and training of attendants, and the constant watchfulness that is exercised over them, that there may not be some instances of ill-treatment of patients. These will occur so long as mankind continues in its present imperfect state, influenced by prejudice and passion. Neither angels, or perfect and sinless men can be found to take such positions, and the millenium has not dawned; attendants in asylums are subject to all the infirmities of human nature, but trained by the discipline and oversight employed in institutions, they treat patients in the main, judiciously, and with a kindness which is not always equaled by friends, in their care of the insane.

The great advantage of our modern asylums, is that they are hospitals for the treatment of the insane, as sick people demanding the care of a physician. The only reference to the medical treatment is the charge that: "All means are taken to lessen the care. The most ready is to administer opiates," then follows the opinion of Mr. Phillips, who by the way is not a physician.

"In my opinion these are used in our lunatic hospitals with a freedom and to a degree that injures the patient, and retards, or prevents his cure. I feel bound to add, that in my opinion, these

are administered not always or wholly from a sense of medical propriety or need; but largely as a means of saving trouble to the attendants."

This is somewhat egotistic in assertion, and not very complimentary to the honesty or integrity, or even capacity of the physicians who are in charge of asylums, and in our experience, lacks confirmation.

A third objection made to institutions is the routine diet. This, however, has no force when taken in connection with the facts. Diet tables are established in all public institutions, and largely, indeed, in private families, and no one aside from an epicure or irritable dyspeptic finds fault with them. The question of more importance relates to the quality of the diet. In all asylums, great attention is given to this subject of forming diet tables, which shall include a variety of the food containing the elements which science tells us is necessary for the highest degree of health, and for the nourishment of the body.

We are told, "now the insane are invalids, nervous invalids, such as need very nourishing food. Food often does more than medicine to quiet nervousness." To a physician these statements seem entirely gratuitous, and in making them, the fact is totally ignored, that in all cases, in well regulated asylums where the prescribed diet of the hospital is insufficient in quantity or quality, the medical officer supplements it with extra diet, to which generally, there is no limit except that imposed by the market. A fair inference from the report would be that asylums should be conducted on the "*European plan*" of a first class hotel, where patients may be served with what they order—what say the tax payers. Of a fixed dietary he says, "I consider that it diminishes, by one quarter, the chances of cure." What statistics can be quoted to prove the exact amount of in

jury; or that the chances are at all unfavorably affected; It is a fact that the greater number of patients admitted to asylums were never so well fed, and that in most cases they increase largely and rapidly in flesh.

The last recommendation is in regard to the system which should be adopted, in the care of the insane. "We should approach as closely as possible the plan of the village of Gheel, which Dr. Howe has so well described." We have in Mr. Phillips then, an advocate "of the free air and family life system." It is difficult to reconcile this with some of the objections which have been made. The matter of oversight would be rendered the nearest possible to a nullity. In this case "hired help" would be trusted almost "alone and exclusively" Mr. Phillips "knows how untrustworthy they are." The arrangements for the care of the sick would equal those found in the homes of the poorer working classes. The inducement to save from the small pittance paid per week for the board and care of the patient would render the diet not only routine in variety but in scantiness.

It would not seem possible that any one who was familiar with the discussion of the past few years, regarding the system in existence in Gheel, would seriously propose its adoption in this country. Every argument in favor of it has been met over and over again and there are few, if any, of practical experience with the insane who advocate the transplanting of the system. Owing to its impracticability it has never been copied, even in Europe, and it is only left as a legacy to reformers, after having found fault with all existing plans, to recommend as the ultimate good. The animus of the report is found in one of the last lines. "Our lunatic palaces waste money, tempt to abuses, and encourage a hurtful routine, that amuses

and perhaps impresses the visitor, but diminishes largely the chances of cure." This whole report, like the sentence just quoted is an attack upon asylums, made without just reason or support, and contains statements, which evidence such an ignorance of their practical workings, as most persons, especially in a supervisory position, would hesitate to display.

Note on Salicylic Acid. By EDWARD R. SQUIBB, M. D. [Read before the State Medical Society, February, 1875.]

Salicylic Acid has long been known as a rare and curious chemical, derived from the vegetable kingdom. It was first obtained as its name implies, from the bark of the willow, and has also been found as a constituent of our common wintergreen. It has within a year or two, attracted attention as a powerful antiferment and antiseptic. It was desirable that some source whence it could be obtained in quantity and at small expense, should be discovered. Modern chemistry supplied the want; an organic compound, from which, from its elementary composition the new compound, salicylic acid might be split or dis-associated, was found in carbolic acid. The agent which the chemist selected to resolve the molecule of phenol was carbonic acid.

"Thus from the action of carbonic acid on carbolic acid, salicylic acid is produced; a process which is about as far from the original willow tree, as a source of the acid, as can well be imagined, and yet a process which is as much the result of human knowledge, based upon human research, as that by which Le Verrier and Adams discovered the planet Neptune." * * *

"Whether bleached or unbleached, the acid is in minute broken acicular crystals, which give it the appearance of a granular powder, soft and smooth under the pestle or knife, but somewhat rough or resinous when rubbed between the fingers. This powder is odorless and nearly tasteless. It has, however, a sweetish and astringent after-taste with slight acridity in the fauces, but none in the mouth; and though tasteless, it leaves a disposition or inclination to expectorate, which continues for some time.

It is practically insoluble in cold water, but is very soluble in hot water; and the water of a hot solution retains when cold, in proportion to its coldness, from about one part in two hundred and fifty, to one part in five hundred of the solution. The presence of various neutral salts in small proportion in the water render it far more soluble. Up to this time phosphate of sodium seems to have been chiefly used in Germany to render it more soluble in water for medicinal purposes, and it is said that three parts of phosphate of sodium will render one part of the acid easily soluble in fifty parts of water. It is much more soluble in alcohol and ether than in water. It melts at about 125°C.=257°F., and sublimes at about 200°C.=392°F. In common with other similar acids it forms salts with the principal bases, but these seem thus far to be difficult to make, and their effects have not been investigated.

It is used for medical and surgical purposes, either dry or in solution. When used dry it is sprinkled on to wounds, ulcers, or dressings in the form of very fine powder, in very small quantities, either simply powdered, or mixed in various proportions with some diluent, such as starch. When used in simple solution either for spraying surfaces, or for washes or gargles, it is used in tepid solution of about one part to three hundred parts of water. Where stronger solutions are required for washes, gargles, or to moisten dressings, one part of the acid and three parts of phosphate of sodium to fifty parts of water have been used. When applied to wounds it appears immediately in the urine.

Its alleged advantages over all other antiseptics are: First, that it is far more powerful and effective in smaller quantities; and secondly, that it is, in all quantities necessary for complete ~~com~~-tiveness, entirely devoid of irritant action upon the living tissues. It is not caustic nor corrosive in any quantity, and never produces inflammation. In large quantities it may be irritant and painful, but yet rarely surpasses a stimulant effect, while it appears to be quite neutral in the very small quantities which are yet thoroughly effective. Thirdly, it is said to reach and prevent processes of decomposition which are beyond the reach of all other antiseptics or antifermenents. These processes are of two kinds, namely—vital or those in which living organisms have an important part, such as that produced by yeast, and many of those which occur in putrefaction; and chemical, or those which occur independent of vitality, as the production of the volatile oils in mustard and bitter almonds, the effect of diastase, etc. Now, while carbolic acid and

other antiferments are azymotic, or completely arrest or prevent fermentations of the first kind, they are powerless with the chemical processes. Salicylic acid is said to be more effective with the vital ferments, and equally effective with the chemical.

Fourthly, in quantities said to be thoroughly effective, it is entirely odorless and tasteless, and harmless, whilst it has no poisonous effect in any reasonable quantity.

It prevents or arrests the souring of worts, washes and beers of the brewers; and prevents or arrests the putrefactive agencies which are so troublesome and destructive to the glue manufacturers; and these and similar trades have thus far seemed to be its principal consumers. Separate portions of fresh milk set aside to become sour, one to which 0.04 per cent. of salicylic acid was added soured 36 hours later than the other. Urine thus protected was on the third day still clear, and free from ammoniacal odor.

Varying proportions of the acid added to accurately measured separate portions of sweet milk, and these carefully observed afterward until they sour—or, by the use of meat juice instead of milk observed closely for signs of putrefaction—would offer good indications of the quantities required to arrest these varieties of fermentation.

Professor Thiersch, of Leipsic, used it upon contused and incised wounds, and in operations, with excellent general results, destroying the fetid odor of cancerous surfaces, and pyæmic ulcerations. To such uses this writer would add the suggestion that for washing out the cavities of the abdomen and chest after those operations which tend so strongly to septicæmia, solutions of salicylic acid would seem to offer very great advantages should it prove to be as bland and unirritating as it is stated to be, and yet so effective."

We quote, from the *Boston Medical and Surgical Journal*, more recent experiments with the acid.

"We have received from Professor Horsford the following abstract of two papers just received from Professor Kolbe, containing the results of experiments made at Leipsic with salicylic acid.

In the lying-in hospital of Leipsic, salicylic acid has been employed to the exclusion of carbolic acid since July last: for disinfection of the hands, in vaginal douching, application to ulcera puerperalia, etc., in solution in water of one part in three hundred to one part in nine hundred, or as a powder mixed with starch in

proportion of one part in five. This use of salicylic acid has thus far been attended with such successful results that it is recommended in the strongest terms for use in obstetric practice, by the authorities of the hospital.

Professor Kolbe suggests that physicians, and especially hospital physicians, should study the action of salicylic acid as a medicine, whether and in what quantity of larger or lesser doses it will influence scarlet fever, diphtheria eruptions, syphilis, dysentery, typhus, cholera, etc.; and whether it may be used against pyæmia and the bites of dogs; also whether it may not be used advantageously among horses, cattle, and sheep to prevent glanders, foot-rot, mortification, and so forth.

Kolbe to prove the innocuousness of salicylic acid, took for several consecutive days half a gramme (seven and a half grains) daily in water, one part to one thousand, without the slightest observable unpleasant effect. After an interval of eight days he took for five consecutive days one gramme (fifteen and a half grains) daily, and then for two days one and a half grammes, (twenty-three grains) in alcohol each day. The digestion was perfectly normal; no trace of salicylic acid could be found in the urine or faces. (The test is per-chloride of iron, which gives an intense violet color.) At no time was there the slightest discomfort.

The experiment was repeated by Professor Kolbe and eight of his students, all at the same time. Each took on the first day one gramme, and on the second day one and a quarter grammes, of salicylic acid. Not one of them was able to observe the slightest derangement of any organs.

The acid in diluted solution is employed to wash the feet to prevent the offensiveness arising from the butyric, valerianic, and other related acids in sweat. It is also used as a constituent in tooth-powder, and for a liquor to wash the mouth.

Professor Wunderlich, of the University Hospital, Leipsic, recommends a medicinal preparation of salicylic acid for internal use, consisting of

Acidi salicylici.....	1 grammie.
Olei amygdalæ dulcis;.....	20 grammes.
Gummi Arabici,.....	10 "
Syrupi amygdalæ,.....	25 "
Aquaæ florum aurantii,.....	45 "

Kolbe proved by experiment in the bath that the salicylic acid is very little if at all absorbed through the skin.

C. Neubauer (a pupil of Professor Kolbe) has experimented with salicylic acid to determine the quantity necessary to arrest fermentation, in solutions of sugar and in new wine. He found that one gramme of salicylic acid is adequate to make 0.98 gramme of press yeast (weighed dry) in ten litres (about ten quarts) of new wine incapable of fermentation.

Kolbe found that $\frac{1}{2000}$ of salicylic acid would keep river or pond water in casks perfectly fresh (the experiments continued four weeks in a warm room) where without the acid the water acquired unpleasant taste. This quality will make the salicylic acid serviceable in preserving water on long sea-voyages."

We make these extracts as the acid promises to be of great value in many cases treated in asylums. We have used it, as a wash, with marked success in sloughs and erysipelas. In cases of bed sores, with profuse and offensive discharges, we employed a powder of acid one part, to starch six parts, sprinkled lightly over the surface twice a day. This rendered the patient more comfortable by diminishing the discharge and destroying its fetor, and also brought the parts into a condition more favorable for healing. We have no doubt that further use will show its adaptability in many cases now treated by carbolic acid, over which it has many advantages.

Smithsonian Miscellaneous Collections. The Toner Lectures.

Lecture IV. A Study of the Nature and Mechanism of Fever.

HORATIO C. WOOD, M. D.: 1875.

Dr. Wood groups the phenomena of fever into three sets: acceleration of the heart's beat and disturbance of the circulation: nervous disturbance: elevation of bodily temperature. He asserts that the first two sets are merely secondary and dependent upon the third, and that therefore the essential part of fever is the elevation of temperature. The demonstration consists in proving the following propositions: their truth once acknowledged, he says, the final conclusion is inevitable.

"First. External heat applied to the body of the normal animal, so as to elevate the temperature, produces derangement of the nerve functions, of circulation, etc., etc., precisely similar to those seen in natural fever; the intensity of the disturbance being directly proportionate to the rise in temperature.

Second. Heat applied locally to the brain or to the heart produces in the functions of the organ those disturbances which are familiar phenomena of fever, the intensity of the disturbance being directly proportionate to the excess of heat in the organ.

Third. The withdrawal of the excess of heat in fever is followed by a relief of the nervous and circulatory disturbances."

In support of the propositions, Dr. Wood gives the results of numerous experiments, some of which have already appeared in his work, "Thermic Fever," published in 1872. We are not able to give them in detail, but can assure our readers that they will repay careful perusal and that they seem to support the position taken by the author.

Report of the Commission to Investigate the Condition of the Insane Criminals and report to the Legislature of 1875.

The readers of the JOURNAL, are aware of the discussion of the question relating to the care and condition of the Insane Criminals of the State of Pennsylvania. In settlement of this question, a commission was appointed, whose report is before us. They recommend the erection of an asylum devoted to their care and treatment and present a plan for such an institution, which they suggest should be centrally located, at Altoona or Tyrone, and which can be built at an expense of not more than \$150,000. The wisdom of this recommendation will commend it to all conversant with the subject, and the settlement of this question is a matter of congratulation.

Eighth Annual Report of the State Board of Charities of the State of New York. [Extract relating to Pauper and Destitute Children.] By WILLIAM P. LETCHWORTH.

Commissioner Letchworth, has, in this special report, compiled the statistics gained from an examination of all the county houses in the State, relating to the public care of the pauper and destitute children. There were in the poor houses of the State, at the time the inquiries were made, 615 children; of these 325 were healthy, intelligent children over two years of age, the remainder were either under two years or were diseased or defective. A willingness was manifested by the county officers generally, to co-operate in any plan for the amelioration of the condition of these unfortunate children. In some of the counties they are provided for in the orphan asylums at public expense. The subjects of causes of pauperism, and the best disposition to make of these destitute children, attract considerable attention from the Commissioner, who closes the consideration of the question, what shall be done with pauper children, with the recommendation of the passage of a law by the Legislature, giving county officials power to place in families or in asylums, all over two years of age, except those unfitted for family care. Much time has been devoted to this examination, and the report is exhaustive, and will no doubt be the basis of future action regarding this unfortunate class of dependents.

Extract from Same Report. [Relating to out-door relief.] By Prof. M. B. ANDERSON.

The statistics presented are startling, as showing the amount of money actually expended in this State, through the regular official channels for the support of its paupers. Including the interest of the investment

in county poor houses and city alms houses, it reaches nearly three millions of dollars. The special investigations are claimed to prove that pauperism is hereditary, as many as three generations being found to be occupants of poor houses. The recommendations for the treatment of the pauper class are definite and practical, and if followed would certainly tend to reduce the numbers of this class, and relieve already over-burdened tax payers. They are, "light work for the more infirm," and "hard labor for able bodied," and "the punishment of tramps and street beggars by law." The historical allusions to ancient Greece, to Rome, to England and other countries, are interesting by way of comparison, and as showing the terrible result of ill-directed methods of distributing legal charity.

Contributions to the Annals of Medical Progress and Medical Education in the United States, before and during the War of Independence. JOSEPH M. TONER, M. D.

This work was prepared at the request of the Convention of School Superintendents, which met in Washington in 1872, with a view to its forming a part of the representation of the rise and progress of the system of education of this country, for the Vienna Exhibition. Upon the recommendation of the Commissioners of Education, it has been published by the Government. Although the time was too limited to enable the author to finish it for the occasion which gave it origin, it is however, of no less interest and value, as a record of the profession in the early days of the country. The period will soon be past, when it will be possible to collect accurate data concerning individuals and occurrences, which have not been preserved in public archives, or in the printed history of the times, and every effort in this direction should receive encouragement.

The collection before us is one which must have involved much personal labor and correspondence. Every fact relating to those days "which tried mens' souls," acquires an ever-increasing interest, from its connection with the origin of our existence as a nation, as well as that of our institutions of learning.

The first medical school in the New World, was established in Philadelphia, in 1765, with two professors, Drs. Shippen and Morgan, who filled the two chairs of "Theory and Practice of Physic," and "Anatomy and Surgery." The first course of lectures was given to twelve students, in a room in the rear of Dr. Shippen's office, in 1762, and these were continued to gradually increasing classes till 1765, when the college was opened.

The College of New York was founded in 1767, and fully organized the following year, as a department of Kings, now (Columbia) College. The pamphlet contains the names, with short biographical notices, of the early physicians of each of the original thirteen colonies. It also contains a graphic description of the life and duties of physicians, and the inconveniences against which they struggled, and closes with a rapid survey of the growth and advance of medical science.

A retrospect of the struggles and triumphs of Ovariotomy in Philadelphia. The Annual Address before the Philadelphia County Medical Society, by WASHINGTON L. ATLEE, February, 1875.

This address of Dr. Atlee, is one of great interest, and to the younger men of the profession, details a chapter in the history of that distinguished surgeon, which, without such convincing testimony would scarcely be credited. The opposition which he encountered in his efforts to introduce the operation of ovariotomy to the profession, and to place it upon the sure foundation of the basis of science, seem at this date

almost incredible. To be called a "murderer" to be abused and refused recognition as a physician, to be publicly and unwantonly attacked by his colleagues in the professorial chair, when put in contrast with the present position of the man and the operation, exhibit in the strongest light the changes which time and perseverance in the conscientious discharge of duty may effect. Dr. Atlee may justly take pleasure in recounting these facts in his address, as the retiring President of the Society, which first gave him countenance, by inviting him to lecture before it on the subject of the diagnosis of ovarian tumors.

Transactions of the American Ophthalmological Society. Tenth Annual Meeting, Newport: July, 1874.

This is a large volume of nearly three hundred pages, and is illustrated by several plates representing pathological conditions. It contains a large number of reports of cases which show the interest, in their labor, of those who have devoted themselves to this specialty.

On the Insanity of Inebriety. By GEORGE BURR, M. D., of Binghamton. [Read before the Neurological Society, October 5, 1875. Reprinted from the *Psychological and Medico-Legal Journal*, for December, 1874.]

Elephantiasis of the Penis, from Structure of the Uretha, Amputation. By ROBERT F. WEIR, M. D., [Reprinted from *Archives of Dermatology*.]

Clinical Ureametry. By HENRY G. PIFFARD, M. D., [Reprinted from the *New York Medical Journal*, December, 1874.]

The polar Action of Electricity in Physiology. By JOHN J. MASON, M. D., [Reprinted from the *New York Medical Journal*, December, 1874.]

Report of the New York City Council on Political Reform. For the years 1872, 1873 and 1874.

BOOK NOTICES.

The Histology and Histo-chemistry of Man, a treatise on the Elements of Composition and Structure of the Human Body. By HEINRICH FREY, Professor of Medicine in Zurich. Translated from the Fourth German Edition, by ARTHUR E. J. BARKER, Surgeon to the City of Dublin Hospital, Demonstrator of Anatomy, Royal College of Surgeons, Ireland, &c., &c. With six hundred and eight engravings on wood. New York: D. APLETON & Co.: 1875.

We agree with the translator, Dr. Barker, that any lengthy personal testimony to the value of a work on histology by Heinrich Frey is unnecessary. The fact that it has already reached a fourth edition in Germany, and been translated into French, is sufficient proof of the favor with which it has been received in those countries, which contain the closest observers and the most enthusiastic students of the science of histology. To the students of this country who have become familiar with Frey's work on the microscope, no recommendation will be needed, to assure them of the accuracy and scholarship of its author, of which the present work is but another evidence.

The author begins his work with a general history of the subject, its rise and progress, giving credit to Bichat of founding a system of histology by the help of the anatomical knife, chemical analysis, and of pathological and physiological research. This is designated as the epoch of investigation without the microscope. Little advance was made till after the discovery of achromatic object glasses, which transformed the clumsy instrument of the last century, into the elegant and accurate instrument of the present day. Among the founders of modern histology are recognized the names of Ehrenberg, Müller, Purkinje, Wagner, Valentin and Henle. The name of Schwann is mentioned, with special note, as the discoverer of the cell as the starting point of all

structures, and to him is given the honor of founding the science of "HISTOGENESIS," or the study of the origin of tissues. The students of pathological histology are recalled in Müller the originator, and Virchow, Rindfleisch and Conheim.

In thus giving credit to these investigators, both predecessors and cotemporary, our author does honor to himself in the association. The work is arranged in three natural divisions, first, the matters of which the human and animal body generally is composed; second, histology in the more restricted sense, the various tissues, in their anatomical relations and composition; the third, consists of the more minute structure of the organs and systems of the body or the manner in which they are put together, which may also be termed "TOPOGRAPHICAL HISTOLOGY."

To the Appleton's as publishers, the medical profession owes a constantly increasing obligation, for presenting works of such merit, and which, from their character, command but a limited sale. This book is printed on heavy white paper and in good type, and the engravings, of which there are more than six hundred, are with few exceptions, clear and distinct, and will furnish the student a correct standard of comparison with the microscopic view of the prepared structure.

Compendium of Children's Diseases, a hand-book for Practitioners and Students. By DR. JOHANN STEINER, Professor of the Diseases of Children, in the University of Prague, &c. Translated from the Second German Edition, by LAWSON TAIT, F. R. C. S., Surgeon to the Birmingham Hospital for Women, &c. New York: D. APPLETON & CO.: 1875.

In rendering into English so valuable a work as the one before us, Dr. Tait has merited the hearty commendation of those desiring a concise description of children's diseases. It is essentially a compendium, and therefore, as we should expect, many diseases are treated

in as short a manner as is consistent with clearness. The author, whose fifteen years experience in the Hospital at Prague, has made him familiar with the subject, speaks largely from his own experience, and has little to say of theories.

The first chapter devoted to a description of methods of examining children, best calculated to enable the practitioner to establish an accurate diagnosis, displays considerable ingenuity, and contains many important suggestions. The statistical feature of the work is especially valuable.

Of one thousand cases of brain disease, meningitis simplex occurred but eight or ten times, and in most of these proved fatal. Two hundred cases of hydrocephalus are reported, and in one hundred of these the effusion was into the ventricles. In a large proportion of cases of the congenital form of this disease, the fluid is poured out internally or into the ventricles, and is sometimes the result of a protracted labor. The treatment in both the congenital and acquired forms, according to the author, amounts to but little. He does not notice the fact which is recognized in this country, that hydrocephalus occurs more often in city children, and that a removal to the country, early in the disease, is often of the greatest advantage. The administration of chloroform, either by inhalation or by the mouth, in convulsions of children, is not mentioned.

In ten years there were under observation two hundred and seventy-five cases of chorea, the tendency of most of them was to get well without special treatment. In some cases, however, in which tonics were recommended they served to shorten the course of the disease. Mention is made of the various remedies which have been brought forward from time to time as specifics, most of which have been consigned to the "curiosity cupboard." Bromide of potash has not proved of greater value than many other remedies; of electricity he speaks favora-

bly, theoretically, but as he says without experimental knowledge.

Considerable attention has been given to pathology as evidenced by the accurate description of the anatomical appearances in so many of the diseases under consideration. In croup the author depends largely upon tracheotomy, and does not mention the practice so much in vogue in this country of steaming or atomizing the throat.

The statistics include 10,180 cases of pneumonia, and of these affected with the catarrhal form, about two thirds died. This is declared to be a larger percentage of deaths than occur in private practice, and is certainly larger than the mortality records in our own hospitals show. There is nothing peculiar in the treatment.

Of diseases and disturbances of the alimentary tract the author treats at great length and in a very practical way.

In 1,180 cases of typhoid fever among children, the rate of mortality is much less than that ordinarily met with in adults, ten or twelve only having died. Cold packing to reduce temperature can not be used without danger. The danger of communicating syphilis by vaccination can be entirely avoided by never vaccinating children under three months of age. All of the twelve cases infected were under this age. In the treatment of the scrofulous condition, cod-liver oil is recommended as superior to all other remedies.

The description of the course and treatment of fever is explicit and practical, and embraces all the more recent ideas of the German schools, as well as the results of his own observation and experience.

The appreciation of the work abroad, is shown by the fact that the compendium has already reached its second edition in Germany. We believe it has not lost in translation and will be favorably received by the English reading portion of the profession.

Physicians Office Case-Record, and Prescription Blank Book.
Cincinnati Case Record Company: 1874.

We deem it a fair proposition and one to which physicians generally will assent, that a record should be kept of prescriptions made for a patient. It becomes a matter of great moment when the question of possible error arises, also in all cases subject to judicial investigation, besides being an absolute necessity to many physicians to enable them to recall the daily treatment of cases.

There have been many and various kinds of record-book, presented for use to the profession, which claim to embody all possible advantages, but we have seen none which seems so admirably adapted to meet the wants of the busy practitioner as the one before us. It contains a space for the particulars essential to preserve, a blank for the prescription given, as well as a duplicate to be retained on record. They are prepared for both office and visiting calls, and are furnished at reasonable rates by the publishers.

S U M M A R Y.

Dr. Edwin D. Bentley, Assistant Surgeon U. S. A., has been elected Superintendent of the new State Asylum, located at Napa City, California.

—Dr. Mark Ranney has offered the resignation of his position as Superintendent of the Wisconsin State Hospital for Insane, to take effect from the first of April. Dr. Alexander McDill, the former Superintendent, has been elected to fill the vacancy thus created.

—Dr. Charles Corey who was appointed the Supervising Superintendent of the Kings County Lunatic Asylum, after the resignation of Dr. Carlos F. Mac-

donald, in August last, has resigned. Dr. James A. Blanchard, who was at the same time appointed Resident Superintendent, continues in that position.

—Dr. Joseph Workman has resigned the position of Superintendent of the Toronto Asylum, which he has so long held, and with such great credit to himself, and advantage to the Institution. The following notice will explain itself.

“Applications will be received by the Government of the Province of Ontario, addressed to the undersigned, up to the 15th of May, 1875, from regularly certified physicians, having had experience in the management and working of asylums for the insane, for the position of Medical Superintendent of the Toronto Asylum, Canada, about to become vacant by the resignation of Dr. Joseph Workman. All applications must be accompanied by duly certified testimonials as to character and position; stating age, whether married or unmarried, and length of service in an asylum for the insane, together with certified copies of diplomas as physicians or surgeons from recognized medical authorities. Salary \$2,000 (about £400 sterling) per annum, with furnished apartments, fuel, light, water, and furnished table for family. Appointment to take effect from 1st July, 1875.

ARCHIBALD MCKELLAR,
Provincial Secretary.

Office of Provincial Secretary, Toronto 15th March, 1875.

—Dr. H. C. Willison the successor of Dr. Stacy Hemenway as Resident Physician, Territorial Asylum, Steilacoom, W. T., has resigned that position. It is unnecessary for us to give in detail the circumstances which led to this action. The present difficulties were foreshadowed in Dr. Hemenway’s report for 1873, and therefore no special foresight was needed to predict the troubles which have arisen from such a division of responsibility. The care of the insane is farmed out at ninety-one cents a day, the contractor furnishing food, clothing and attendance, while another person is supposed to have full control over the medical, moral, and sanitary management of the Institution; this arrangement as might be expected produced trouble. The self-interest

of the contractor, and the duty of the physician, led to diversity of opinion and of action, and the patients naturally enough were the sufferers. The Doctor resigned, and the contractor holds the field. The terms of the contract expire in August, 1876, at which time we hope the suggestion contained in the report of 1873, will be carried out by the Legislature, and a hospital organization effected, with a medical superintendent as the responsible head. In this arrangement only, is there immunity from such conflicts of interest and duty. All other measures have failed and are destined to fail, "a house divided against itself can not stand."

BURNING OF THE QUEBEC LUNATIC ASYLUM.—It is our sad duty to record another of those painful accidents, to which institutions for the insane are peculiarly liable. On the night of Friday, January 29, 1875, the "Quebec Asylum" or the "Beauport Lunatic Asylum" as it is called, was visited by an extensive, and in its destruction of life, the most serious fire which has occurred in any Asylum on this continent. The Asylum is the private property of Drs. J. E. J. Landry and J. E. Roy, who have contracted with the Provincial Government for the care of the insane of the Province of Quebec. It consists of a male and female department, which occupy separate buildings at a distance from each other, of about three hundred feet. This separation of the two buildings alone prevented the destruction of the entire institution. The portion occupied by the women patients was a large fine structure, and is described as "the pride of Quebec" and "the admiration of strangers." The center part, the eastern wing, and adjoining buildings were burned, and much injury was done to the other wing, by the hurried removal of all its contents. The fire was first discovered at about seven o'clock in the evening issuing from the room of a very disturbed, maniacal patient, whom on account of

her violent and dangerous conduct it was necessary to isolate. She had often spoken threateningly, and said she would have her revenge. Some ten minutes after being placed in a room by herself, the straw bed was found burning, and the flames had communicated with the wood work. The room was on the ground floor and the wards above were fully occupied by patients. The flames had made such headway that the safety of the patients demanded immediate attention. The officers and employés worked heroically, and were aided in their efforts by the citizens, and the fire department of the city who responded to the alarm. They were afterwards efficiently assisted in the protection of property by a detachment of troops. There were in the building 420 patients. They were removed to the building occupied by the men; the scene during their removal was, according to the accounts, something fearful and such as we hope may never be witnessed again. The efforts to preserve life were quite successful, and for a time it was supposed but two lives were lost and that the remainder who were missing had escaped. Time revealed the painful fact that twenty six lives had probably been sacrificed.

About one month after the fire an inquest was held; the verdict rendered by the jury was to the effect that, every precaution had been taken by enforcing proper rules and regulations, and by the bountiful provision of the usual means for extinguishing fires, and closed by stating that in the rescue of the patients the greatest heroism was displayed, and that no efforts that could reasonably be expected from the proprietors, their officers, and employés were spared.

The pecuniary loss is large, being computed at \$120, 000, while the insurance which will be received upon the portion actually burned, will amount to about \$30, 000. The furniture was also insured. May other institutions be spared such a calamity.





